THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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EXHIBITIONS

IT is an age of exhibitions. An expression of that immense development of publicity methods which aim to promote the well-being of industry. If "all the world's a stage" the public exhibition is part of that world and must certainly be included in it. On this exhibition stage is set a comedy made of the resources of materials in which the chief actors are industry and democracy. The curtain rises, and we are dazzled by the variety and extent of the performance, and also of the performers, its success depending almost entirely on those two chief actors we have named. But to drop metaphor and looking into the matter as it appears to us, there is found beyond the purpose of extending trade through exhibitions a contact set up between people, and which draws them together, the spur which maintains them depending not only on competition but emulation as well. In the case, for instance, of the forthcoming Building Trades Exhibition at Olympia, there is given the opportunity of displaying before clients and the public the extent of the resources which modern science and enterprise now put before them. What is lacking in knowledge and the average of taste is informed and improved by the assemblage of so much that shows progress in the working of materials. By thus concentrating in one exhibition the wide extent of possible resources, an influence is diffused which must react not only in the promotion of trade, but in the improvement of taste.

We see how the manufacturers, by concentrating on single features of the building industry and perfecting them, present us with a better thing. An instance of this is seen in the better designed brick chimney-piece, showing so much improvement in the handling of the material and becomingness of design. These improvements are seen to be influenced by the presence of the architect, whose trained appreciations so much contribute to the results. This in itself is important. The drawing together of the architect, manufacturer and builder, to appreciate what each has to give, receives through such exhibitions, from the evidence presented to us, fresh impulse. And the opportunity which they afford for discussion of matters on which they are mutually concerned is all to the good.

Whatever the character of the manufacture, we are more and more becoming conscious that artistry pays; that the dominating requirement to-day is that our work should be well done. Nor is the reason—important though it be—of the commercial advantage lying in it the only one. There is the human consideration which in the end should surely direct every other, and has not in the past always directed it. The interest of the worker in his work, and therefore his efficiency in it, depends on the pride and interest permitted to his labour. To find pleasure again in work and so to heighten self-esteem offers a solution of our labour troubles where nothing else may avail.

Publicity pays, but it also improves. In speaking of the value of exhibitions we referred to their effect on the public taste, and we may take an illustration of the effect of this publicity on advertising itself. Through seeing constantly displayed the various products of this industry, good, mediocre, and bad, we see how the better thing begins to be preferred, and that in advertising it is not the cost but the artistry which secures approval. The Underground Railways have demonstrated this by their public-spirited action in adorning our stations with many charming examples. We know it is asserted that the poster which is too good is not as useful for publicity as one which does not arrest attention from the thing advertised by its artistic claims. We question, however, the proof of this assertion, for it would be to admit that in certain cases to do a thing well we must do it badly. Prestige is of more value than the view which disregards this advantage to industry. And so it is with exhibitions. A better thing is not only its own security, but is all the time, though unconsciously, guiding the spectator's judgment and improving his choice. It has been sometimes asserted that there is more profit in producing, let us say, three leather straps in the same time that would be occupied in producing one good one, in order to multiply sales. But such forms of competition gradually destroy themselves, for as better education and more enlightened public spirit informs us of the better profit of making things well, the inferior article will be left behind. Fallacies die slowly, but this one is dying, as also that other which tells us that it is to the advantage of trade to sell second-class things at first-class prices. Unfortunately for such a view, there is a public conscience growing, finding the sounder economics in a production which includes no such evasions, and which resents any such alternative as keeping back part of the price.

The building industry is of such national importance, entering so deeply and intimately into the life of the whole people, that we may permit ourselves here to refer to the need there is, where not already the case, for the manufacturer and the builder to realise the need of the architect. We see it asserted that about 90 per cent. of building does not make use of the architect at all. Whether or not the case, his contribution is so advantageous to the builder that this is much to be regretted. The absence of the architect is very much to be observed in middle-class house building. We can recall neighbourhoods where, in consequence of this lack, numbers of the houses built are commonplace and pretentious. For one house "architect designed" there are ten times the number where his absence is much to be regretted,

Taking the instance of the Building Exhibition, a very instructive and important part is that contributed by the Craft Schools. In the work displayed by the students of these schools there is a high degree of excellence shown, a real appreciation of sound methods in the working of stone, wood, metal and other materials, both in craftsmanship and design—in fact, a very adequate recognition of the best requirements for building purposes. As these students pass out from the schools to take up employment, the influence of this better training translates itself into actual production, to the raising of the whole standard of what is executed. Education and practice thus moving hand in hand react on each other to the advantage of both.

Turning for a moment from these practical examples of the service offered through exhibitions, we may with advantage dwell for a moment on those tendencies which are seen influencing in another way, and endeavour to interpret them. We have to beware of catch phrases and of the impatience of those who would tell us that in these practical matters advice can be of no service, unless advanced by those immediately concerned in production themselves. It is the practical man, impatient of thought and resisting ideas, who most often blocks the way. And in regard to phrases we have in mind one doing duty for thought, but which more often begs the whole question. When we hear so much about "building to our own time and circumstances," as though something conclusive had been uttered, we are entitled to ask what those circumstances are and whether they are met by those who thus assert it? Or how shall we interpret such a phrase at all? In building to our own time, that is to its needs, we may at once say that there is no greater need than that we should give the best, seeking all means whereby we may improve our work.

Such reflections in no way discount the evidence of improvements in the character of industry; and exhibitions such as the Builders' are the practical demonstration of this advance. There is a fine spirit abroad to make the best of our work because we would make the best of ourselves. As exhibition follows exhibition we see the promise, and can regard the outlook with assurance. What the world needs is more settled habit and tradition, to co-ordinate the vast new resources discovered by science to a democracy established enough in principles and outlook to use them well. We are living in a world enlarged beyond the power always to co-ordinate the new experience it is bringing to us. Nor is the present need contained in any manuals of morality, or in much preaching. It is the better determination to get the best out of life which we can only do as we reach nearer to satisfying ourselves. We are wearying of lesser aims. Industry and democracy hold the future in their hands. It is in the present; it is in the past. It is what we make it. If it is bad it will be our fault. If it is good it will be the work of our own hands.

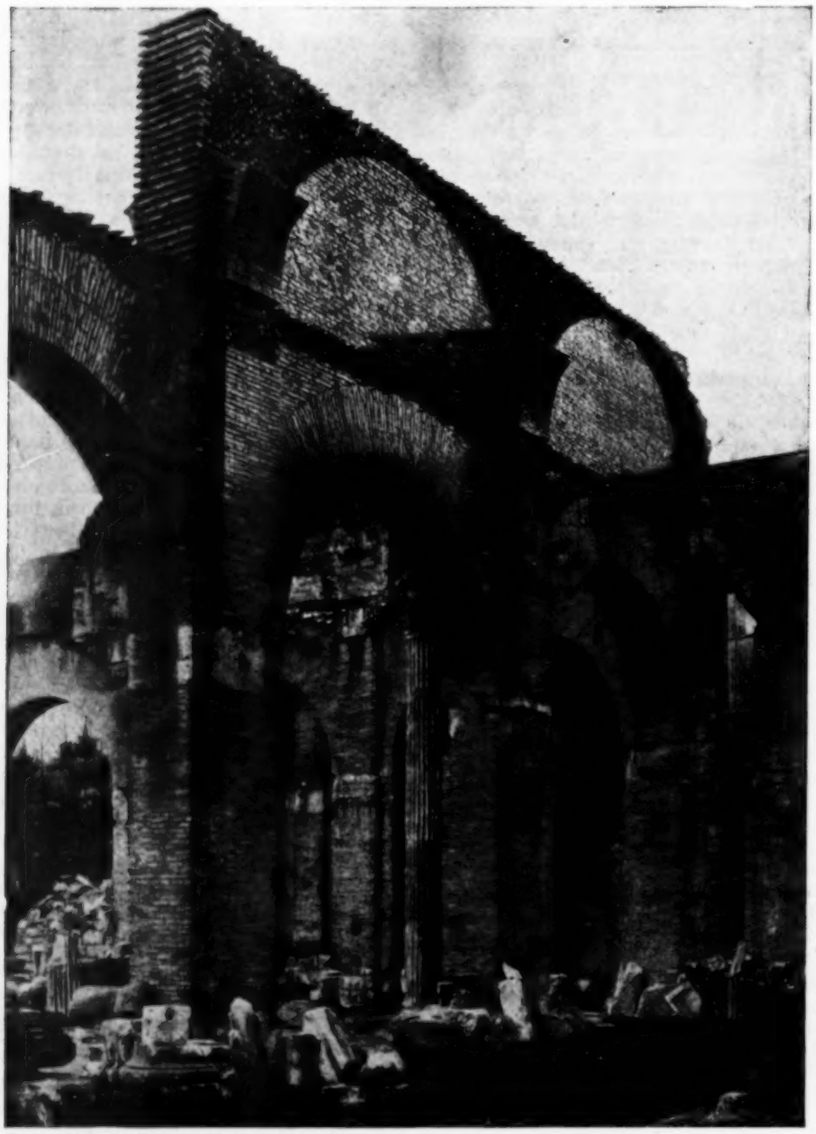
NOTES

A New President. We are glad to note the election of Mr. S. Hurst Seager as President of the New Zealand Society of Architects, as we think he is sure to do something of value for architectural affairs during his tenure of office. As he is commissioned by the Government to show to the people in every part of New Zealand what has been done in the erection of battlefield memorials, he will have very good opportunities to help forward the consideration of town planning in various directions. The comments of Mr. Seager on the Dunedin Exhibition indicate a good deal of architectural ability in the work there carried out, and in regard to various matters like picture gallery lighting and the right illuminations he considers the results decidedly better than they were at Wembley.

Shakespeare Memorial Theatre. We cannot complain of any lack of energy amongst those who are endeavouring to create a new Shakespeare Memorial Theatre over the ruins of the old and one which shall be much more worthy than that which has just been destroyed. The many communications on the subject which we have received suggest that no effort will be wanting to create some really worthy monument of the great Englishman. Those who know most of the condition and capacities of the architectural profession to-day will, we imagine, look to the chance issue of competition as probably the surest method of securing a design worthy of the occasion. There is plenty of practical guidance available for making the plan of a modern theatre, but it is not so easy to see how we shall come by a design which shall express it with convincing pleasure to the world; and can we venture to hope there may be something traditionally English about it? We can hardly doubt that enough money will be forthcoming for the new building (it has been suggested that some kindly-disposed and rich American may start the fund with a hundred thousand), so we ought to have a competition in the very near future.

The City Churches Again. The City Corporation, in their dignified protest laid before the Ecclesiastical Committee of both Houses of Parliament, has given in detail the grave objections to the Measure of the National Assembly. The Corporation very rightly regarded as contrary to the principles of equity and justice that objections to a scheme "should be submitted to the same body (the Metropolitan Benefices Board) that has been concerned in its initiation and has advised the Bishop . . . on the very same proposals upon which it is called upon to adjudicate as a tribunal of appeal." It is also very justly objected that under the measure the Bishop can secure the appointment of Commission after Commission until a report be obtained that is favourable to his proposals. Such methods, so it appears to us, condemn themselves and the objects they would secure in such a way. But the danger to the City churches is in no way over, and it behoves all those interested in their preservation to exercise their influence that this measure shall not pass as it stands.

Better Pay for Better Workers. The levelling tendency of the policy of British trade unions that all workers in the same trade should be paid the same rate whether they be good, bad, or indifferent workers is not in favour in America, where it is realised that a good workman is worth more, and deserves to get more, than a slow or poor workman. At Kansas City the men who place reinforcement in concrete have a union of their own, which has put up a proposal to the local building trade employers' association that the members should be sorted out into four grades, according to their skill. The "good" workers were to receive 12 dollars a day and the wages of the other grades were to be decreased proportionately down to 8 dollars a day for the poorest workers. A committee of representatives of the union was to meet periodically to consider the grading and put the men into higher or lower grades according as their skill and output increased or decreased. The employers' association turned the proposal down because the union refused to let anyone except its own members have any say in the grading—they probably had an idea that it would not be very long before the whole of the members were in Grade 1—but the incident does show the totally different attitude of the American workman on the wages question.



From "Roman Architecture," by G. T. Rivoira.

Remains of the Basilica Julia, the Forum, Rome. (*See page* 591.)

Mechanically-produced Decoration. Some notes in a contemporary on the new Devonshire House arising out of a visit made by the R.I.B.A. to the building suggest some reflections on the nature of decoration. We are told that the decoration of the building excites "the hope that our architects will presently discover a way of using mechanically-produced details for the adequate decoration of buildings which are mechanical in construction," and there is added the following rather obscure comment: "thus avoiding the last reproach of reducing human craftsmanship to boredom." But are we not likely to be reduced to boredom by mechanically-produced decoration, instead of avoiding it? We have a mechanically-produced railway bridge at Ludgate Hill, embellished with mechanically-produced decoration—and some of us have been reduced to more than boredom for years by it. How shall we avoid this reproach? It appears to us by giving up ornament until we recognise that it is something more than a mechanically-produced thing!

Conditions of British Trade and Commerce. There is now a good supply of industrial statistics derived from trustworthy sources, and the latest addition is the second volume issued by the Committee, appointed in 1924 under the Chairmanship of Sir Arthur Balfour, which was appointed to inquire into "the conditions and prospects of British Industry and Commerce." The first volume dealt with overseas trade, but this volume appears to be of even greater interest, treating as it does on the industries in this country. Reliable statistics on industrial questions should prove an element in the settlement of industrial disputes. In times of heat and controversy very rash statements are apt to be made by the disputants which purport to represent actual conditions, and the public are often left without any means of checking the accuracy of statements made by either side. Such volumes as that now issued appear to furnish exactly what is required, and the Committee state it is intended to serve as a trustworthy book of reference. We defer any detailed consideration of the contents of this volume until we have had opportunity to consider its contents thoroughly, but it appears to contain valuable information on the questions now before the public, such as wage inequalities, the rise in money wages and the cost of living, unemployment, conciliation, &c., which are well deserving of study.

The Ambassador Club, Conduit-street, W.: Main Entrance. (*See page* 592.)

Liverpool Cathedral. Good progress is being made with the building of the next section of Liverpool Cathedral. It is stated that during the last four months as much work has been completed in the preparation of the new foundations as in eighteen months before the most modern methods and appliances were utilised. Work is at present proceeding for the building of the great central space, and the two western transepts. The central space will be a square measuring 72 ft. on each side. The stone vault above will be octagonal in plan with the shorter side resting on arches across the corners of the central space. The western transepts are to be a repetition of the eastern transepts already built. An important feature of the central space is to be the pulpit, for Sir Giles Gilbert Scott has specially planned out this part of the Cathedral with a view of accommodating larger congregations within easy distance of the preacher than in any mediæval churches.

The New Royal Horticultural Hall, Westminster: Accepted Design.

Messrs. Easton & Robertson, Architects. (*See page* 597.)

GENERAL NEWS

Appointments.

The L.C.C. has appointed Mr. Harold Swann and Sir Francis Anderton chairman and vice-chairman, respectively, of the Town-Planning Special) Committee.

The Streets and Buildings Committee of Edinburgh Town Council has recommended that Mr. William Allan Macartney, Assoc. M. Inst. C. E., M. Inst. M. & Cy. E., M.R.S.I., Dumbarton, should be appointed burgh engineer, in view of the retirement of Mr. A. Horsburgh Campbell. The Housing Committee has decided to recommend that Mr. Campbell should be retained as director of housing for two years.

Retirement.

Mr. Joseph H. Hirst, Hull City architect, has notified the Corporation Works Committee that he desires to retire, having completed 42 years' service, within the next three months.

Architect's Estate.

Mr. Leonard Aloysius Scott Stokes, of Mulberry-walk, Chelsea, S.W., a former president of the R.I.B.A., who died on December 25, aged 67, left estate of the gross value of £8,810.

Kitchener Memorial.

The Kitchener Memorial Committee has fixed June 4 at noon for the unveiling of the Memorial at Marwick Head, Orkney. General Lord Horne is to perform the ceremony.

Architects' Benefactor.

Mr. A. C. Galbraith, of Park Village East, Regent's Park, N.W., who died on February 9, aged 77, left £100 each to the Architects' Benevolent Society and the Artists' General Benevolent Institution.

Corporation and City Churches.

The Special Committee of the City Corporation has decided to present a petition to the House of Commons against the Union of Benefices and Disposal of Churches (Metropolis) Measure, which the Ecclesiastical Committee of the two Houses have agreed to report favourably upon.

Derwent Wood Memorial Exhibition.

An exhibition of the work of the late Francis Derwent Wood, R.A., will be opened shortly at the Leicester Galleries, Leicester-square. This will be the first "one-man" show ever held by the sculptor and will show him as a painter in oils and in water colours, as an engraver and as a caricaturist.

Preservation of Old Monuments.

The sixth list of monuments prepared by the Commissioners of Works in pursuance of section 12 of the Ancient Monuments Consolidation and Amendment Act, 1913 (to December 31, 1925), has been published by the Stationery Office, from whom it can be obtained at Adastral House, Kingsway, London, W.C.2, or through any bookseller, price 4d. net.

Bristol Area Town Planning.

Mr. Benson Greenhall, an inspector under the Ministry of Health, attended at the Council House recently to hear objections to an application by Bristol Corporation for the approval of the Ministry to a preliminary statement of proposals for the development of Avonmouth, Shirehampton, Westbury-on-Trym, Horfield, and Filton districts, which was known as Section No. 1 of Filton Section of Bristol Town-Planning Scheme.

The View from Richmond Hill.

The view from Richmond Hill is not to be spoilt. Arrangements have been made by agreement with the Richmond Council for a variation of their town-planning scheme to enable the British Legion Poppy Factory to be built close to the Petersham-road at the bottom of the hill, and close by three-story flats for the accommodation of the disabled ex-Service men employed. The flats are being planned by Messrs. A. Lloyd Thomas & Douglas Wood, FF.R.I.B.A., of 35, Craven-street, Strand, W.C.2.

Proposed National Opera House.

A further stage in the development of the scheme put forward by Mr. Isidore de Lara for the founding of a permanent opera house in London has been decided upon. The scheme is that a £2,000,000 fund shall be accumulated by £1 donations, one half of which would be devoted to the erection in London of a permanent home for opera.

Proposed Preservation of Sussex Mill.

The Sussex Archæological Society is appealing for funds for the purchase and preservation of Oldland Mill, a conspicuous landmark on Lodge Hill, facing the South Downs.

Courses of Instruction for Teachers in Technical Schools.

The Board of Education is making arrangements for the following short courses of instruction to be held in the summer of 1926 for teachers in recognised technical schools, schools of art, junior technical schools, evening schools, &c., in England and Wales:—(1) Engineering science at Oxford; (2) electrical engineering at Oxford; (3) building subjects in London, viz., building subjects, building science, surveying, painting and decorating. Teachers who desire to attend any of these courses must make application to the Board of Education on Form 106e. U. before March 26.

St. George's Chapel, Windsor.

The work of restoring the King's Beasts to the pinnacles of the Chapel of St. George has been completed. Each beast is 4 ft. 6 in. high; the beasts on the lower pinnacles support the appropriate shields of arms, and the upper ones bear standards and pennants. It is stated that under the direction of Henry VII, Bray set up these beasts, and, although no illustrations of the originals are sufficiently clear to distinguish their character, it is understood that they were the heraldic supporters or symbols selected and taken by the Tudor dynasty to illustrate the claim through both the rival houses of York and Lancaster to be in direct lineal descent from Edward III, founder of the Order of the Garter. For 200 years they dominated the chapel, but when Sir Christopher Wren examined them he advised their immediate removal and the substitution of stone pineapples. The stone beasts were removed, but the pineapples were never added in their place.

Waterloo Bridge.

At the last meeting the L.C.C. postponed consideration of the report of the Improvements Committee, which recommended that a competition should be held for a design for the new Waterloo Bridge. The question of shoaling near the bridge, on account of the temporary staging in the river, was raised by Mr. J. D. Gilbert, who asked whether the Council had received any complaints from the Port of London Authority as to the shoaling of the river in the fairway of the present arches used for navigation at Waterloo Bridge; whether such shoaling had not been caused by the erection of the temporary staging and supports of the damaged arches of the bridge; whether the Committee proposed to take any action in the matter, owing to the urgent necessity of maintaining the river channel for traffic; and whether he could make any statement as to what the Committee proposed to do to prevent stoppage of traffic in the event of the existing arches being thrown out of use. Sir Percy Simmons replied that a letter had been received that morning from the Port of London Authority which suggested some tendency to shoaling. Full investigation would be made at once into the matter.

COMPETITION NEWS

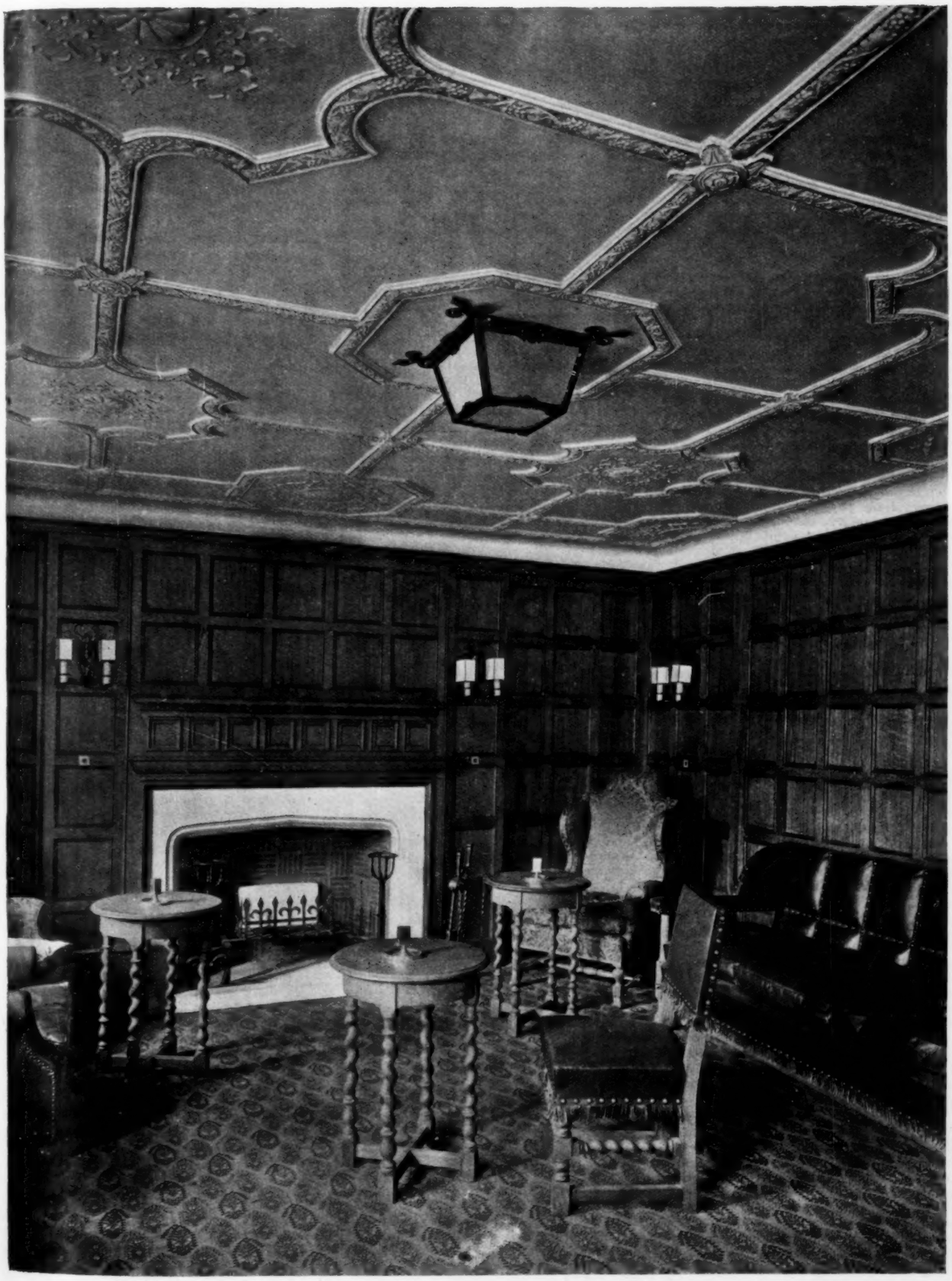
Royal Society of Arts: Competition for Industrial Designs.

This competition will be held in the Upper East Gallery of the Imperial Institute, South Kensington. Full particulars of the scholarships and prizes offered can be obtained from the Secretary of the Royal Society of Arts, Adelphi, London, W.C.2. Applications for forms of entry, labels, and instructions must be sent to the Secretary between May 1 and 15. Designs are to be forwarded to the Imperial Institute between June 21 and 23, and after the judging, which takes place in July, the accepted designs will be on show there during the whole of August.

Competitions Open.

	Particulars published in "Builder."	Sending-in date.
Papers on subjects connected with Heating and Ventilating. Two prizes of £10 10s. and one of £5 5s. offered by the Institution of Heating and Ventilating Engineers	Dec. 25 ..	May 1
Isolation Hospital for Infectious Diseases, Doncaster. Mr. T. R. Milburn, F.R.I.B.A., assessor. Premiums: £200, £100, and £75. Apply, Mr. W. Bagshaw, Town Clerk, Doncaster, to whom all questions must be addressed by March 8. £1 1s. deposit required	Jan. 29 ..	May 10
Australian National War Memorial, Villers Bretonneux, France. Limited to Australians under special conditions. Apply Military Headquarters in capital city of each State, or High Commissioner's Office, Australia House, Strand, London. £2 2s. deposit required	Dec. 25 .	May 31
Royal Society of Arts Competitions for Industrial Designs. Apply Secretary, Royal Society of Arts	Jan. 1 ..	June
(*a*) Dance Hall, (*b*) Restaurant, (*c*) Variety Entertainment Pavilion, (*d*) Shops, for Aberdeen Town Council. President of the Incorporation of Architects in Scotland, assessor. Apply to Mr. A. B. Gardner, Director of Housing, Town House, Aberdeen	Feb. 26 ..	June 14
Working-class Dwellings, Daventry, to be erected in various parishes, for the R.D.C. Prize of twenty-five guineas for best plans, and £1 per house will be paid for each house erected to plans submitted by any competitor. Designs to be sent to Mr. W. H. Abbott, Clerk to Council, 4, New-street, Daventry	Mar. 12 ..	Mar. 23
Elementary School, Oldbury, to be erected in Bristnall Hall-lane, Warley, Worcs., for the U.D.C. Mr. W. S. Skinner, F.R.I.B.A., assessor. Particulars of Mr. Arthur Culwick, Clerk to Council, Oldbury. Deposit £2 2s.	Mar. 12 ..	May 21
Incorporated Architects in Scotland: (1) Rowand Anderson Medal and £100: City Art Gallery and Museum; (2) Rutland Prize (£50) for Study of Materials and Construction; (3) Prize (£10 to £15) for 3rd year Students in Scotland; (4) Maintenance Scholarship, £50 per annum for 3 years. Apply Secretary of the Incorporation, 15, Rutland square, Edinburgh	Nov. 6 ..	—
Royal National Eisteddfod of Wales, Swansea, Competitions: (1) National Parliament House of Wales (Prize, £100); (2) Street Facade to a Large Stores (Prize, £25); (3) Set of Measured Drawings of Architecture (Prize, £25). Apply for programme to publishers, Messrs. Morgan & Higgs, Heathfield-street, Swansea (1s. 2d. post paid). Mr. Arthur Keen, F.R.I.B.A., Assessor	Nov. 6 ..	July 15
Pair of Working-class (Subsidy) Houses in brick, non-parlour type, with three bedrooms, for Diss U.D.C. Designs and prices invited. Apply Mr. G. E. K. Burne, Clerk.....	Feb. 19 ..	—

* Competitions when "warned" or vetoed by the R.I.B.A. are starred.



The Ambassador Club, Conduit Street, W.: Smoking Room.

Messrs. A. Durand & W. Allison, AA.R.I.B.A.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Position of the Architect.

Sir,—If the statement which has appeared on several occasions in the Press recently is true, viz., that "90 per cent. of modern building is executed without any design by or supervision of an architect," it is surely time some definite steps were being taken to rectify this state of affairs, not only for the sake of the architect but in the interests of architecture as an art and the reputation of the country. The general public are supposed to be more cultured now than ever and more able to understand the inter-relation between art and life, but in practice never were they more ready to sacrifice the ideal of perfection in treatment and execution for some monetary consideration. They refuse to realise that the value of anything is determined by deeper and more lasting standards than bulk, quantity and dividends.

Little that is new can be said about economic factors, but surely it is not beyond the power of the best intellects in the profession to devise some method of reasoned proof which will appeal to the common sense of the best among the masses. Ruskin and Morris may have led us into many sterile by-paths, but they set a great example of the power of courageous and persistent propaganda in matters relating to architecture and the allied arts and their place in the scheme of things. There are many minor causes which seem to have been overlooked, contributing to the non-employment of architects in building work. Many people who ought to know better misrepresent the architect's position.

For instance, the writer recently discussed this question with a well-known lawyer. This lawyer stated that architects had themselves to blame as he considered their fees ridiculously high, and he condemned the use of a sliding scale of fees (as he said) fluctuating between 2½ and 10 per cent. The writer pointed out that the scale of fees was determined by the class of work and the amount of detailing and supervision necessary. This lawyer finished up his remarks by stating that in many cases he advised his clients not to employ an architect but to go to a builder direct, never realising that the builder must employ someone to draw the plans and get them through the Court. The builder not being concerned about the æsthetic aspects of the problem, naturally goes to the cheapest market, regardless of qualifications or experience of the person he employs to prepare the plans. In many cases this person is a junior draughtsman on the staff of some Municipal or Civil Service department. Such person may have access to numerous designs for similar work prepared by practising architects. The inference is obvious. This person being in receipt of a regular salary has no need to consider the question of economic remuneration. We have actually heard of builders boasting that they could get such a person to prepare plans of a house for five guineas and repeats for three guineas.

This custom is winked at by Municipal and Civil Service departments, and so far the profession does not seem to have taken any real or active steps to have it abolished. The position amounts to this, that the profession as tax and rate-payers are actually subsidising a certain class to take the work of building out of their hands. Lawyers as a class have little understanding of the artistic side of building problems, and their economic outlook governs everything except the amount of their own fees. No architect who carries out his work as it ought to be carried out is overpaid at the present rates of commission. Could no legal steps be taken to rectify the present state of affairs?

Absolvi Meam Animam.

Competitions.

Sir,—In recent issues of *The Builder* there has appeared a competition for an isolation hospital at Doncaster. According to the conditions, this is limited to "architects established in private practice," thus disqualifying a large number of Associates and Licentiates. If this policy is continued, there seems to be no object in an Associate or Licentiate remaining a member of the R.I.B.A.

Two Assistants and Associates.

***We understand and sympathise with our correspondents' annoyance, but not their conclusion.—Ed.

MEETINGS

Friday, *April* 9.

The London Society.—Mr. Ingleson C. Goodison on "London Craftsmen of the Seventeenth and Eighteenth Centuries." At 18, John-street, W.C.2. 5 p.m.

Saturday, *April* 10.

Incorporated Clerks of Works Association.—Annual Dinner. At the Holborn Restaurant. 6 p.m.

Edinburgh Architectural Association.—Visit to National War Memorial, Edinburgh Castle. Leader, Sir Robert Lorimer, A.R.A.

Monday, *April* 12.

Royal Institute of British Architects.—Special General Meeting. At 5.30 p.m.

The Institution of Structural Engineers.—The Annual Dinner. At The Piccadilly Hotel, W.1. At 7.30 p.m.

The Surveyors' Institution.—Mr. C. P. Sanger, Sir J. Oakley, and Messrs. C. H. Bedells, W. Hunt and H. E. Sherwin on "New Law of Property." At 12, Great George-street, S.W.1. 8 p.m.

Wednesday, *April* 14.

Royal Society of Arts.—Mr. R. A. Dawson on "Art Training for Industry and the Society's Competitions." At 18, John-street, W.C.2. 8 p.m.

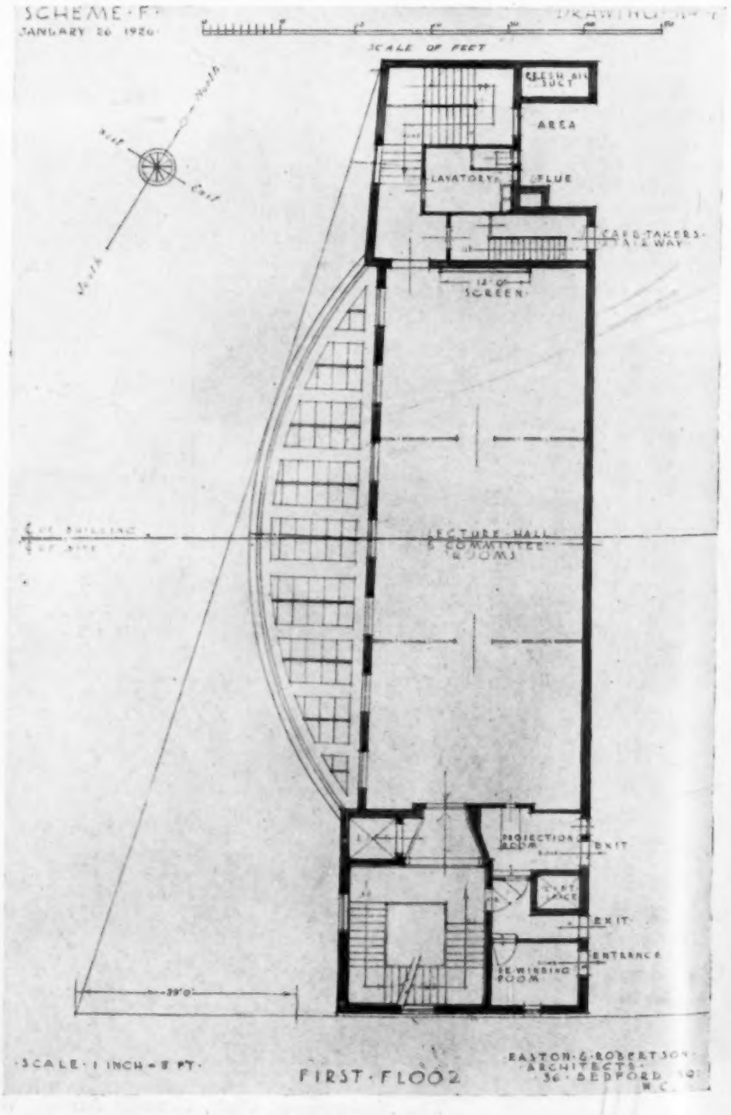
Building Trades Exhibition.—Opening ceremony. At Olympia. 12 noon

Institution of Structural Engineers (Lancashire and Cheshire Branch).—Annual business meeting. At Manchester.

Royal Institute of British Architects.—Mr. F. Inigo Thomas, F.S.A., on "Gardens." At 5 p.m.

Thursday, *April* 15.

Society of Antiquaries of London.—Dr. Haakon Shetelig on "The Origin of the Scandinavian Style of Decoration during the Migration Period." At Burlington House, W.1. 8.30 p.m.



The New Royal Horticultural Hall, Westminster: Accepted Design.
Messrs. Easton & Robertson, Architects.

SOCIETIES AND INSTITUTIONS

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The Royal Gold Medal for Architecture.

At a special general meeting of the Institute, on March 29, Professor Ragnar Ostberg (Honorary Corresponding Member of the R.I.B.A.), of Stockholm, was elected by the members and his name will be submitted to His Majesty the King as a fit recipient of the Royal Gold Medal for Architecture for the year 1926. In the event of His Majesty graciously signifying his approval of the award, the Medal will be presented to Professor Ragnar Ostberg at the banquet of the R.I.B.A., on June 17.

New Members.

The following new members have been elected :—

Fellows.—S. G. Livock; S. W. Milburn, M.C.; W. Milburn, junr., B.Sc., F.S.I.; Major F. W. Moore, D.S.O., M.C.; R. Phillips; H. L. Beckwith, F.S.I.; Major J. Chadwick, T.D.; F. G. Faunch; F. T. Waddington; J. F. Walsh, F.S.I.

As Associates.—H. G. Blizzard; G. P. Brookfield, B.Litt.Oxon, B.Sc.; J. Burton; S. J. T. D'Souza Castellino; R. E. M. Coombes; W. R. R. Cooper; M. Currie; C. H. Dann; S. H. Doyle; C. C. Gray; C. Green, B.A. (Oxon); R. T. Green; T. Harley; C. G. Kemp; C. F. Kimber, M.C.; S. Lipson; A. M. McKewan; C. J. W. Messent; J. R. Moore; P. E. Palmer; F. W. Paramor; J. H. Pashen; P. M. Patker; Barbara Poushkine; E. A. A. Rowse; D. J. Simpson; B. W. R. Thomas; R. O. Vine; E. Watson; O. M. Welsh; G. Wilde; C. E. Wilford; P. H. Winter, P.A.S.I.

As Hon. Associate.—H. Batsford.

Intermediate Examination, May.

The centres for this examination will be London and Manchester. At both centres the examination will be held from May 28 to June 1 inclusive. At the London centre the oral examination will be held on Thursday, June 3; and at the Manchester centre on Wednesday, June 2.

BERKSHIRE SOCIETY OF ARCHITECTS.

The sixth annual meeting of this Society was held at Reading University on Friday evening, March 26. The Hon. Secretary's report made mention of a considerable amount of work done by the Society during the past year dealing with architectural education and architectural, professional and local matters. Public lectures on architectural subjects have been given in conjunction with the Workers' Educational Association. The Society now consists of ninety-five members and eleven honorary members.

The following officers were elected for the year 1926: J. G. T. West, F.R.I.B.A., Chairman; H. Hutt, F.R.I.B.A., Vice-Chairman; H. Whiteman Rising, F.R.I.B.A., Hon. Librarian; W. R. Morris, L.R.I.B.A., Hon. Treasurer; C. B. Willcocks, F.R.I.B.A., W. J. Freeman A.R.I.B.A., Hon. Secretaries; A. S. Cox F.S.I., L.R.I.B.A., E. P. Morgan, L.R.I.B.A., Hon. Auditors; W. Galt Millar, F.S.I., J. T. Saunders, F.R.I.B.A., W. R. Howell, F.R.I.B.A., S. E. Burrett, Four Members.

The following members were nominated to represent the Society on the Council of the Berks, Bucks, and Oxon Architectural Association: E. P. Warren, F.S.A., F.R.I.B.A.; W. Galt Millar, F.S.I.; W. R. Howell, F.R.I.B.A.; F. H. Floyd, F.R.I.B.A.; H. Hutt, F.R.I.B.A.; C. B. Willcocks, F.R.I.B.A.; H. W. Rogerson.

The prizes offered by the Berks Archæological Society for measured drawings of old buildings were awarded as follows: First prize (£2 2s.) to Mr. R. P. Walden, for drawings of St. Leonard's Chapel, Henley Parish Church; second prize (£1 1s.) to Mr. P. G. J. Carter, for drawings of the old stables, Bucklebury House, Berks.

After the meeting a lecture was given by Mr. E. P. Warren, F.S.A., F.R.I.B.A., on "Ancient Crafts Guilds and their Workmanship." The lecture was illustrated by numerous lantern slides, showing fine examples of craftsmanship in the thirteenth, fourteenth and fifteenth centuries. Attention was especially directed to the very fine work on the west front of Rheims Cathedral, which, fortunately, had not suffered from the German bombardment to the same extent as the rest of the building. The illustrations also included a simple and beautiful cross in Herefordshire, an elaborate font cover in Suffolk, screens in Devonshire, and many other examples in England, France, Alsace, and Tyrol. The lecturer gave an interesting account of the rise, constitution, and activities of the ancient guilds and their relation to the Merchant Guilds, many of which still survive in name in the City Guilds and in other towns.

The Merchant Guilds, which were very wealthy, were, he said, distinct from the Craft Guilds. The latter consisted entirely of craftsmen, and membership was only attained through the stages of apprentice, journeymen, and master craftsmen. Full membership could only be obtained on production of actual examples of executed work. A high level of skill was thus maintained. Protection and help was afforded to the members in their work and in arranging its value, and assistance was given to them or to their dependents in case of adversity.

The lecturer drew attention to the effect of the "Black Death" on the work of the guilds. This plague in the fourteenth century, which particularly affected Bristol, Norwich, and London, swept away more than half the population of England, including a large proportion of the master craftsmen. The work of the guilds had thus to be undertaken largely by the partially trained apprentices and journeymen, and a noticeable decline in the quality of the craft work in later periods could be observed.

A hearty vote of thanks was accorded to Mr. Warren for his lecture.

NORFOLK AND NORWICH ASSOCIATION OF ARCHITECTS.

In a recent lecture before this Society, on "Some Modern Buildings in Europe," Mr. F. R. Yerbury, dealing with housing, showed views of schemes at Ruislip, Swanpool, and Welwyn which he commended for their simplicity combined with observance of the best traditional manner of domestic designs. Regarding the problem of housing masses of the people in populous areas, he cited the London County Council scheme in the Ossulston area of St. Pancras. On the ground that there was hindrance to light and air objection to flats might be raised. That he would not discuss; but he did think they would have to look forward to the time when there would be many such blocks running to as much as nine stories high. That was what was happening in Vienna, where the plan of building houses outside the city had proved a failure because the workmen could not put up with the loss of time caused by journeying to and from their employment. Some of the blocks now built inside the city were immense, but they had certain amenities, including interior courts with a bathing pool in the middle. On the whole, he thought it could not be disputed that the standard of housing in England was far ahead of that of any other country in Europe. After some views showing new developments in church and school architecture, the lecturer turned to the cinema, which, he said, had produced architecture almost of its own. One of the best that he knew of was "The Regent," at Brighton, which was remarkable for the fineness of its colour and decorations. Of course, the cinema people, as a rule, had no respect for architecture. They would plaster it all over with bills about Charlie Chaplin. As for the buildings of commerce, Mr. Yerbury exemplified by his pictures a tendency of the times by which the growth of big combines had led to the erection of huge blocks of buildings in which all the processes of the business could be concentrated. This was a tendency very noticeable in Germany. Some Hamburg pictures showed buildings that were just a series of floors with uniform rows of windows.

Having illustrated and commented upon a number of modern buildings, including Adelaide House and Heal's shop in Tottenham Court-road, the lecturer showed some examples of modern town halls. Present-day architecture, he said, was something clearly worth taking interest in. We could only get fine architecture when the public themselves took an interest in it. It was the duty of every one to pay more attention to the architecture of the present day, more even than to that of the past.

Mr. E. T. Boardman, moving a vote of thanks, said he had found the town hall pictures particularly interesting. They badly wanted a town hall in Norwich.

Mr. W. A. Scott, seconding, expressed the view that some of the new buildings in Regent-street were very beautiful. For the final effect, we should have to wait till the newness had worn off.

HANTS AND THE ISLE OF WIGHT ASSOCIATION OF ARCHITECTS.

The first general meeting of the session of the Hampshire and Isle of Wight Association of Architects, was held recently at the Castle, Winchester, the Vice-President, Mr. J. Arthur Smith, F.R.I.B.A., being in the chair, in the absence of the President, Sir W. W. Portal.

In the course of his report the Hon. Sec., Mr. A. L. Roberts, said that the Association was started in 1912, and by 1913 it had enrolled 7 honorary members, 25 fellows, and 42 associates, a total of 74 members in all. Since 1919 the question of the registration of architects brought about the amalgamation of the Society of Architects with the Royal Institute of British Architects, a step in which the Allied Societies played an important part. The establishment of the Conference of Presidents of Allied Societies had supplied a "missing link" in more closely uniting the Allied Societies with their parent Institute, and as a result the importance of Allied Societies to the Institute's provincial members had been enormously increased and definitely established. They had now 3 honorary members, 59 fellows, and 50 associates, a total of 112 members, or an increase of 38 over 1918. The R.I.B.A. had suggested the desirability of establishing an "Architects' and Builders' Consultation Board." They would all welcome the idea, calculated as it was to establish better and more friendly relations between those in charge of the two great branches of their work, not to mention the many points of importance to both parties which could be jointly discussed and amicably settled. At the suggestion of the Institute the formation of a "Science Standing Committee" was under consideration. At the present time there were no records of the nature, advantages, disadvantages or peculiarities of local building materials, and the idea was that the collecting and recording of information of this kind should be undertaken by a suitable committee of the Society, who would have power to co-opt other useful members from outside. Members generally would be invited to help by supplying information, whenever possible, and a students' prize for research work and an essay of a scientific nature based upon such research was to be included in their next programme of competitions. The Institute Board of Architectural Education was in communication with the Society with regard to architectural education facilities in Hampshire and the Isle of Wight, which were to be improved.

The meeting proceeded to consider the revised rules which had been drafted by the Council. Some amendments were made, and the amended draft was then approved for submission to the R.I.B.A. for consideration and sanction. A programme of meetings, visits, and lectures for the current session was submitted and approved. The question of reverting to the pre-war practice of issuing a report upon the proceedings of the Association was considered, and it was decided that in future such a report should be published biennially.

STREET ARCHITECTURE.—XI.

By V. M. CHRISTY.

THE STRAND AND HOLBORN.

The Strand and Holborn are the two main thoroughfares of London connecting the City with the West. The toll bars of both survive in name still; for some distance the two streets run almost parallel with one another, separated by less than half-a-mile; yet they form a striking contrast. The Strand has probably more right than any other to be called the true High-street of London. It is certainly known by name to far more persons than is Holborn, its companion highway. Yet, in Edward I's time the Strand was no street at all; in Henry VIII's the road was "very noyous and foul, and in many places thereof jeopardous to all people passing and repassing, as well on horseback as on foot." In Elizabeth's reign it was a street of palaces, with gardens sloping to the river. In our own days it is perhaps less "noyous," but hardly less "jeopardous," to those on foot.

The impression produced upon the observer in the Strand to-day is not so much that of a riverside shore, such as the name implies, as of a river itself. It resembles a waterway rather than a roadway. Holborn, and even Fleet-street, into which the Strand so completely merges, are streets of many stopping-places. They produce none of that sense of constant flow which the Strand engenders, even during an apparently interminable traffic hold-up. In the Strand all the buildings, old and new, smart and decrepit, conspire to give the waterway impression. The island churches, standing firmly moored, seem akin to the Venetian church or palace. Even the Law Courts have a suggestion of flood-gates or sluices in their composition at ground level. The turrets, which end but do not begin, complete the illusion; for they are of the kind overhanging the River Cher at Chenonceaux, and artificial moats elsewhere. Somerset House has a front which is more suggestive of a watergate than a carriage entrance; and King's College follows suit. The majority of the new buildings in the Strand live up to this river character; some even seem to exaggerate it. Shops and stores have cavernous entrances; there are balconies, too, such as the one lately finished, hoisted to the extreme top of a strongly vertical building in order, it would seem, to be well above high-water mark at spring tides. Bush House partakes of the nature of some colossal pier for a non-existent bridge. Other buildings near are either provided with a similitude of flood-water openings, apparently designed to let the water wash through without damage to the erection above; or else they are so elevated on massive bases as to raise their principal floors out of the rushing stream. The Gaiety Theatre and the *Morning Post* Building are of the latter kind. Australia House effects a compromise between the two. The suggestion of a waterway is perhaps more strongly emphasised than anywhere else, in the great new block at the corner where Wellington-street pours its tributary stream into the greater flood. Here the whole design is reminiscent of a piled-up rock, about whose sides the surges beat in vain, but whose continued existence amid the torrent is conditional upon its conforming to the flow of the converging tides. Transported to another spot, that up-piled berg of rectangles might appear too angular, too formidable. It would not do so well in Holborn, for instance. Here, in the Strand, it is only a degree removed from magnificence. A degree removed, one feels, not sheer magnificence. For it is quite evidently a servitor of circumstances, albeit a willing servitor.

Magnificence unqualified is only attained by those buildings which are in a position to dominate their surroundings, either by right of inherent qualities as a work of art, or by reason of their special purpose in relation to the world around them. The Law Courts have a magnificence derived from the magnitude of their ideal function, independently of architectural merit. Somerset House relies on its scale and proportion and the studied fineness of its lesser parts. The Savoy Hotel lacks magnificence, though it may attempt to dominate, for it bases its claim upon its physical bulk. But the building at the Wellington-street corner does not rely upon its bulk, nor, on the other hand, upon detail or decoration. It does not lack decorative relief; but the decorative features are applied with a sparing and discriminating hand; moreover, the type of ornament used is in keeping with the rock-like nature of the building. To realise that a seaweed-and-shells type of ornament is not always appropriately applied, even in this river-road, one need only move a little westward. In places the seaweed hangs in over-lavish festoons, and limpets cling to brickwork with a pathetic air of finding themselves high and dry.

Other new buildings follow the Strand tradition of presenting a substantial resistance to the flowing stream. The block with a brick and stone face follows the irresistible lead, but limits the protective touch to the lower section. This building in two materials has the misfortune to lack decision as to which of the two is to predominate. The result is a certain patchwork effect, which is avoided by buildings in which one principal material only is shown upon the face, or if two, one of them in an evidently subordinate position.

The Strand is a miscellany. In parts it might be called a museum of architectural flotsam and jetsam. But there are pleasing specimens illustrative of harmonious co-operation between the modern architect and his eighteenth-century predecessor. Near one of the island churches, a modern building, which takes the prescribed curve of the street in a graceful manner, also echoes the curve of the screen pediments on the church, although in a different plane. Touches like this provide the needful note of repose in this street of perpetual flow, this "strand" street so like a river.

If the Strand is a miscellany, it may be argued, Holborn deserves still more justly to be so designated. There is, however, a distinct difference in the miscellaneous character of the one and the other. Holborn wears an air of intimacy. Its buildings accept each other as neighbours, though of high and low degree, some down-at-heel, others comely, some prosperous. All are friendly disposed to one another. The insurance cathedrals and the whiskey town-hall, as well as the orthodox town-hall where Holborn becomes New Oxford-street, seem on cordial terms with the irregular gables of the timbered "Inn," and the peeling stucco not far off. There is a friendly domestic touch about the green shutters in one place, and the blue-curtained windows of a bank; even the severe lines of the City Temple are less aloof than many of the Anglo-Classic buildings in the Strand. High Holborn is a trifle more sophisticated than Holborn proper, but it still expresses a neighbourliness. There is something friendly, too, in the "clop, clop, cloop" of horse-traffic, which here at times preponderates over the motor vehicle. A dozen horses can be counted in as many seconds, and even a sprightly two-wheeled tilt cart dances merrily by.

An unbiased observer referred to the buildings of Holborn as a "disreputable jumble of rag-tag and bob-tail." But in spite of its being a jumble, there is a kind of inward homogeneity about the buildings of such varied external appearance here, which the somewhat self-satisfied buildings of the Strand cannot imitate. Perhaps the intangible contrast between these two highways has some real connection with the constantly-moving, onward-flowing impression given by the Strand, and the more fixed, established, conservative, almost domestic character of Holborn.

It is inevitable, nay, desirable, that much of Holborn must, ere long, submit to demolition and rebuilding, such as the Strand is now undergoing. Already, during the last thirty years, much has been done. But it is essential that the rebuilders in this second quarter of the twentieth century should grasp worthily the splendid possibilities which Holborn offers. It matters not very greatly whether they carry on the tradition of semi-domestic, neo-Gothic, set by some of their predecessors, or whether they strike sprigs of "classic," or engraft new combinations of form and material, so it be done with wide and generous forethought. But the imperative necessity, which must be borne in mind, is that the essential unity in diversity, which is the keynote of the thoroughfare, should not be lost or obliterated.

ARCHITECTURAL COPYRIGHT

The following particulars of a law case concerning architectural copyright (Kenneth Dalgliesh *v.* Sandown (Isle of Wight) Urban District Council, Tom Josey (their Surveyor) and H. W. Brown (builder), are contributed to the R.I.B.A. *Journal* by Mr. J. Douglas Scott, Chairman, Practice Standing Committee.

This was an action by Kenneth Dalgliesh, A.R.I.B.A., in which he claimed an injunction restraining the defendant Council, their officers, servants and agents from making, using, or otherwise dealing with any copy of the plaintiff's architectural plans or otherwise infringing the plaintiff's copyright therein or the building erected therefrom, delivery up of all infringing copies, damages for the infringement, and costs.

In March, 1923, the plaintiff designed a bungalow to be erected at Sandown, Isle of Wight, and submitted the drawings in duplicate to Tom Josey, the surveyor to the Urban District Council, who returned one copy to the plaintiff with the Council's approval endorsed thereon. The bungalow was erected under the plaintiff's supervision and completed in November, 1923.

In May, 1925, the client called the plaintiff's attention to a similar building nearing completion and being erected by the defendants at the entrance to the Sandown Recreation Ground. The plaintiff inspected this building, which he found to be an exact copy of the one erected from his design both as to dimensions and design with the exception of a few minor details.

The plaintiff wrote to the defendants calling attention to these facts and demanding an explanation, but without result until the matter was placed in his solicitor's hands. The defendants' solicitor eventually wrote denying liability, expressing regret and enclosing a cheque for 12 guineas, which was returned and a writ issued.

The motion for an injunction came before the Court in December last, when at the adjourned hearing all the defendants gave an undertaking in the terms of the notice of motion. At the same time it was intimated by the defendants' solicitor that the defendants would be prepared to admit the infringement and pay £50 damages and costs. This offer was accepted, and under an order made before a Master in Chancery the infringement of copyright was admitted by the defendants, the copies of the plans were delivered up, the damages paid, also the costs as between solicitor and client, together with any costs properly incurred by the plaintiff preliminary to the issue of the writ and all further proceedings in the action stayed.

The Council of the R.I.B.A., on the advice of the Practice Standing Committee who had investigated the matter, were prepared to assist Mr. Dalgliesh financially and otherwise in pursuing his claim. "Messrs. Gane & Son, Mr. Dalgliesh's solicitors, have supplied me," says Mr. Scott, "with copies of the legal documents and final order for this report as being of interest to the profession, and, I believe, the first case brought claiming architectural copyright under the Act of 1911."

ROMAN ARCHITECTURE*

The development of Roman building construction from the fall of the Republic in 30 B.C. to the sixth century of our era must ever be a theme of absorbing interest to all concerned in the practice or the history of building, providing, as it does, an almost endless field of investigation. In this volume the author carefully traces, step by step, the progress of building methods during these six hundred years in a thorough manner, and we feel that he has achieved in no small measure the object of the book, as stated in the preface —that while supplying the omissions and elucidating the statements made by Vitruvius in the *De Architectura* it may also be a kind of sequel to that great work. The volume is divided into chapters under the headings of the successive Emperors or Imperial families of the periods described. It is profusely illustrated throughout by photographs, plans and sections, and reproductions from old prints, and is produced in an attractive binding.

After a general discussion of the materials used by the Romans both before and subsequent to the establishment of the Empire, the author proceeds with a description of the methods of building, the development of the use of buttresses, the use of pottery jars in the haunches of the vaulting, the construction of barrel vaults, and the introduction under Tiberius of *Structura Testacea*—walls faced with brick and having lacing courses at intervals. Considerable advance in the methods of vaulting was made under the Flavian Emperors, as is seen in the Domus Augustana which, though originally dating from Augustus, was apparently rebuilt by Domitian. Of the basilica Ulpia of Trajan, with its apse at either end, the author, with considerable reason, thinks that it was the prototype of St. Gall in Switzerland, and of many Rhenish churches similarly disposed.

An interesting section is devoted to an analysis of the construction of the rotunda of the Pantheon; the results of the investigations carried out by M. Chedanne in 1892-93 being supplemented, and in some respects corrected, by those made by the author himself. There is, perhaps, little added to what is already known on this subject; but the account collates in a lucid and concise form all the most reliable data on this point existing, and may well be regarded as the most accurate description yet given. The drum is of concrete faced with triangular bricks, and has three tiers of relieving arches buried in its thickness, the divisions between the tiers being marked outside by bold projecting cornices. The substance of the dome itself consists of courses of bricks arranged in horizontal rings, slightly inclined inwards, and having tile bonding courses at intervals. At the base of the dome, and corresponding with the eight recesses below, are eight large relieving arches; but as far as the investigations of 1892-93 extended, *i.e.*, to a height of 23 ft. above the base, no other relieving arches were discovered. This is to be expected since such arches above the haunches would be a source of weakness rather than of strength. In any case, the complicated system of superimposed arches and meridian ribs shown by Piranesi is purely imaginary. The coffered shell seen from the interior is of concrete composed of volcanic scoriae. Many of the buildings comprising Hadrian's Villa at Tivoli with their various systems of vaulting are examined in detail. In concluding his description of these, the author remarks that "no group of monumental buildings, not even the Imperial Thermae of Rome, present such a remarkable variety of forms both in plan and elevation."

With Constantine and his successors the work is brought to a close. The great basilica of Constantine, built principally under Maxentius, though completed by the Emperor whose name it bears, was the last, the largest and the most remarkable of all the buildings of Imperial Rome. Its vast vaulting system, composed of volcanic scoriae with pottery jars embedded in the haunches, was beyond question a masterpiece of roof construction. In the mausoleum built by Constantine to his mother, St. Helena, on the Via Labicana, and now known as the Tor Pignattara, pottery jars were used throughout in the construction of the dome. These jars are inverted and laid in concentric rings and form a light and resonant system of dome construction which was afterwards perfected at Ravenna. An appendix on dome construction is of too cursory a character to be of service to the subject matter of the work, and adds little to its value.

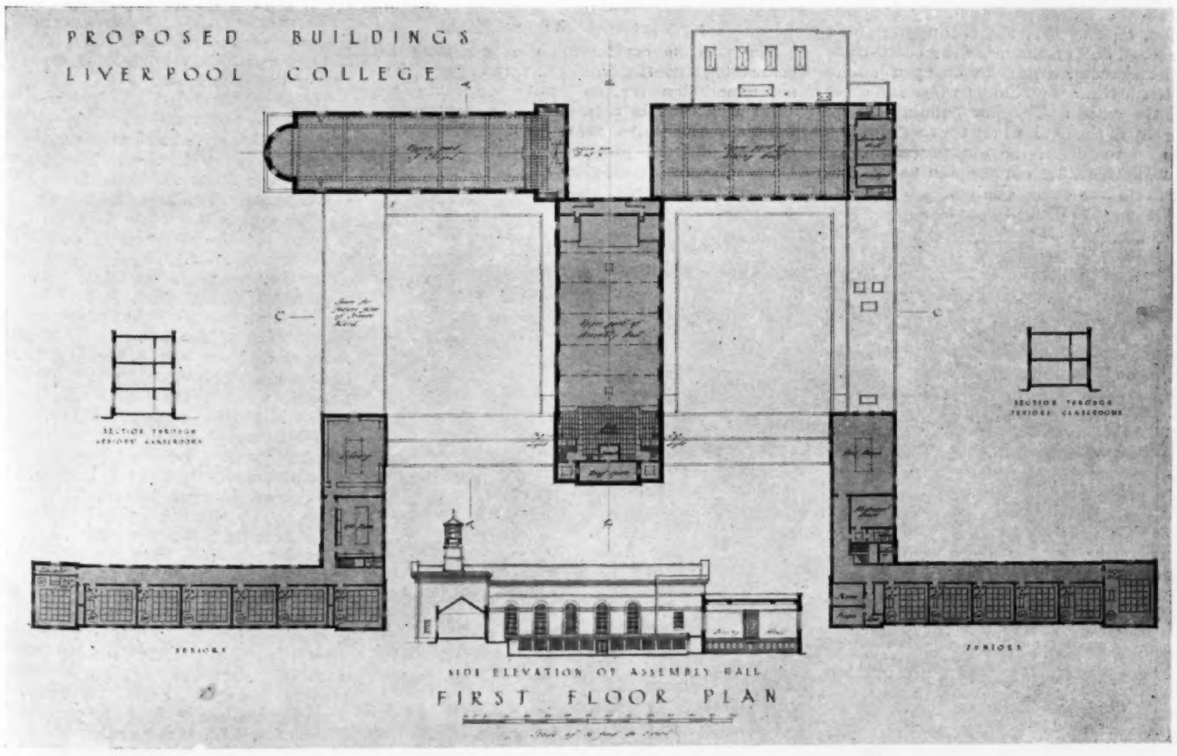
In the production of this version the usual difficulties of the translator were very considerably increased by the decease of Signor Rivoira himself, and the indulgence the translator solicits under these circumstances should be accorded to him. But, while alive to the difficulties, we believe that a greater freedom of rendering would have increased the value of the work to the English reader immeasurably. We would call attention to two errors. On page 126 the word "intrados," in the description of the dome of the Pantheon, is used as applying to the substance of the dome itself and not to its inner surface; and on page 125, 43.20 m., the internal diameter, is equivalent to 141 ft. 8 in. and not to 144 ft.

The author has given here some of the results of lifelong and painstaking investigations, made both in Italy and abroad. He has grasped the true character of the builders whose work he describes and who, as stated by Vitruvius, were at once civil architects and military engineers, who accompanied the legions in the field. He has made a contribution to our knowledge of Roman building construction which must be widely appreciated.

* "Roman Architecture and its Principles of Construction under the Empire." By G. T. Rivoira. Translated by G. McN. Rushforth. Oxford: The Clarendon Press. 1925. 45 guineas net.

New Church at Gethsemane.

The new Basilica Church built by the Franciscan Fathers in the garden of Gethsemane, Jerusalem, was opened during Easter. It is built entirely of Palestinian marble at a cost of £500,000. During its erection the remains of a fourth-century church were discovered.



Liverpool College Competition: First Floor Plan, Second Premiated Design.

Messrs. Crickmer & Foxley, Architects.

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ILLUSTRATIONS

Liverpool College Competition.

We illustrate this week the second premiated design in this competition, by Messrs. Crickmer & Foxley. The winning design, by Messrs. Leathart, Granger & Webber, was published last week.

The ruling motive of the second premiated scheme is the desirability of taking full advantage of the long frontage towards the southern sun. To this end the class-rooms are arranged in two wings parallel with Queen's drive and facing south, the Senior Division to the west and the Junior to the east, separated by a wide forecourt. The class-rooms, with a few exceptions, are on two floors only, and open on to corridors along the north side, provision being made for cross ventilation through the corridors. Each block has a short return towards the north; in these on either side of the forecourt the senior and junior boys' entrance and cloak-rooms respectively are placed. In the centre is the assembly hall, with its axis at right angles to Queen's-drive, the main entrance fronting the road. Connecting the front end of the hall with the class-room blocks are one-story buildings containing, on one side, the headmaster's and clerks' rooms, and on the other the board-room and prefects' room, together with open lobbies leading to the Senior and Junior wings and other parts of the school. This low building is kept near the top of the bank where the made ground ends, so as to screen the abrupt fall in the ground while blocking out the sun as little as possible from the space behind. Entrance to the kitchens and for coal and tradesmen generally is from Ibbotson's-lane at the further side of the site.

On either side of the central hall is a courtyard. That on the east side is terminated towards the north by the dining-hall and on the east by a one-story block containing the workshop, and the assistant-masters' room, with its lobby and cloak-room, adjoining the kitchens. The courtyard to the west of the assembly hall is closed on the north side by the chapel and on the west by the science block, which adjoins the senior class-rooms and is so arranged that another story could be added when required, so doubling the accommodation.

Use is made of the falls in the ground to obtain a fully developed basement under the Senior Division class-room wing containing four class-rooms and a bicycle store for senior boys, while beneath the senior cloak-room and science block room is found for additional storage and for the drill shed, armoury and rifle range. The gravelled yard for drill lies in the angle between the drill shed and the Senior Division class-room block, and is thus screened from Queen's-drive. The lower level of the ground towards the rear of the site also enables additional height to be given to the assembly hall, dining-hall and chapel, and vestry accommodation to be secured beneath the west end (ritual east) of the chapel. A basement is also formed under a part of the Junior Division class-room block, giving junior bicycle accommodation, and a heating chamber and coal store is shown beneath the kitchens.

For the external facing dark red or grey brick is proposed with a small amount of stone in the cornices and basement and to emphasise the main entrance and one or two other centres of interest. The simple rectangular planning would, however, readily lend itself to reinforced concrete construction, should this be found to reduce the cost. The roofs would consist mainly of reinforced concrete flats covered with asphalt. Westmorland slates are suggested for the pitched roofs. The floors generally would be wood block on concrete, and the windows, as far as possible, of metal so as to reduce obstruction of light to a minimum.

House at Thames Ditton.

We illustrate a design for a suburban house by Mr. Frank Hawkes.

The Ambassador Club and Flats.

The problem confronting the architects in connection with this work was that of providing accommodation for an up-to-date luxurious West End Club in a substantially constructed building, thirty-five years' old, designed for entirely different purposes. In the centre of the new façade of semi-glazed faïence, a marquise shelters the entrance, guarded by wrought-iron gates leading to the entrance hall, decorated in the style of the Georgian period, and painted eau-de-nil, with panel mouldings in cream.

A reception office for members is placed on the right with telephone boxes. Adjoining is an American bar, appointed with seats and tables in harewood to harmonise with the quartered panelling of the dado in similar material, the walls above being painted in a fawn colour, and the panel mouldings relieved in a broken white. Overhead is an amber glass ceiling diffusing a golden illumination.

Through the entrance hall is the vestibule of the main staircase, leading to the ladies' and gentlemen's cloak rooms below, with their walls and floors of polished marble terrazzo, and to the gallery of the restaurant above.

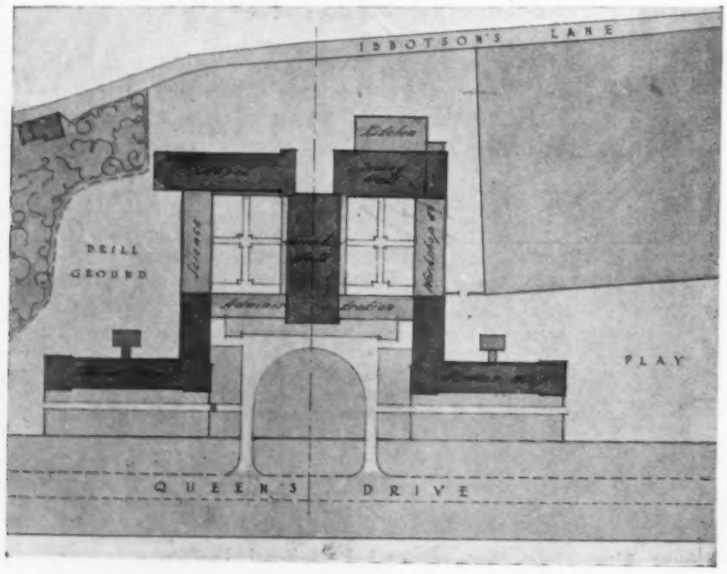
From the vestibule one reaches the dining-hall, which is decorated in the style of the Louis XVI period. A vista of super-imposed fleur de peche columns with old gold capitals and bases forms the principal feature. The seats fitted around the walls are upholstered in a vieux rose silk velvet, specially woven for the Ambassador Club. The same colour is maintained in the silk damask curtains and thick pile carpet surrounding the space reserved for dancing. A specially devised dance floor has been laid.

A well opening has been formed in the centre of the hall, giving height and at the same time providing a gallery with further accommodation for members. An amber glass ceiling crowns the opening with hidden lights producing a warm sunlight effect. The chairs and tables are made in a light coloured birchwood. The walls themselves are symmetrically panelled with a sufficient distribution of mirrors to break the monotony of surface, finished in paint as antique ivory. Special study has been given to the illumination in order to produce a soft golden shade of amber throughout from wall brackets and electroliers

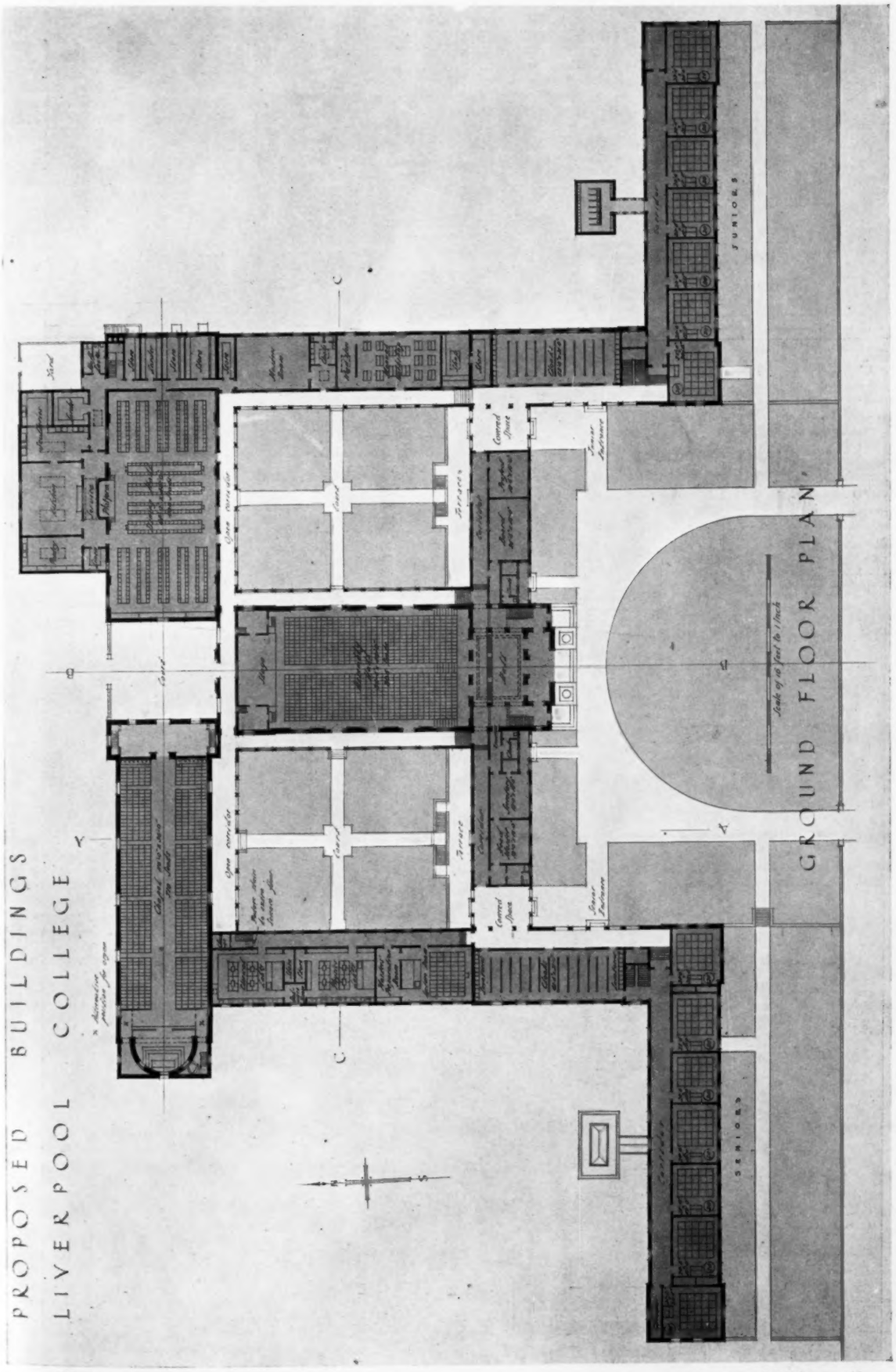
On this floor is provided a grill room in the Queen Anne style, where the grill is visible in action, surrounded with an ornamental glazed screen. The decorative scheme is carried out in light water green, with old ivory moulding surrounding the panels. Plum-coloured silk damask curtains and pelmets drape the many windows.

A short staircase from the first floor vestibule brings one to the smoking and writing room—a low room with an ornamental bas-relief ceiling, walls panelled in oak, and furnished in the Tudor period. An arched stone fireplace, with a briquette lining, holds a wrought-iron fire basket of the period.

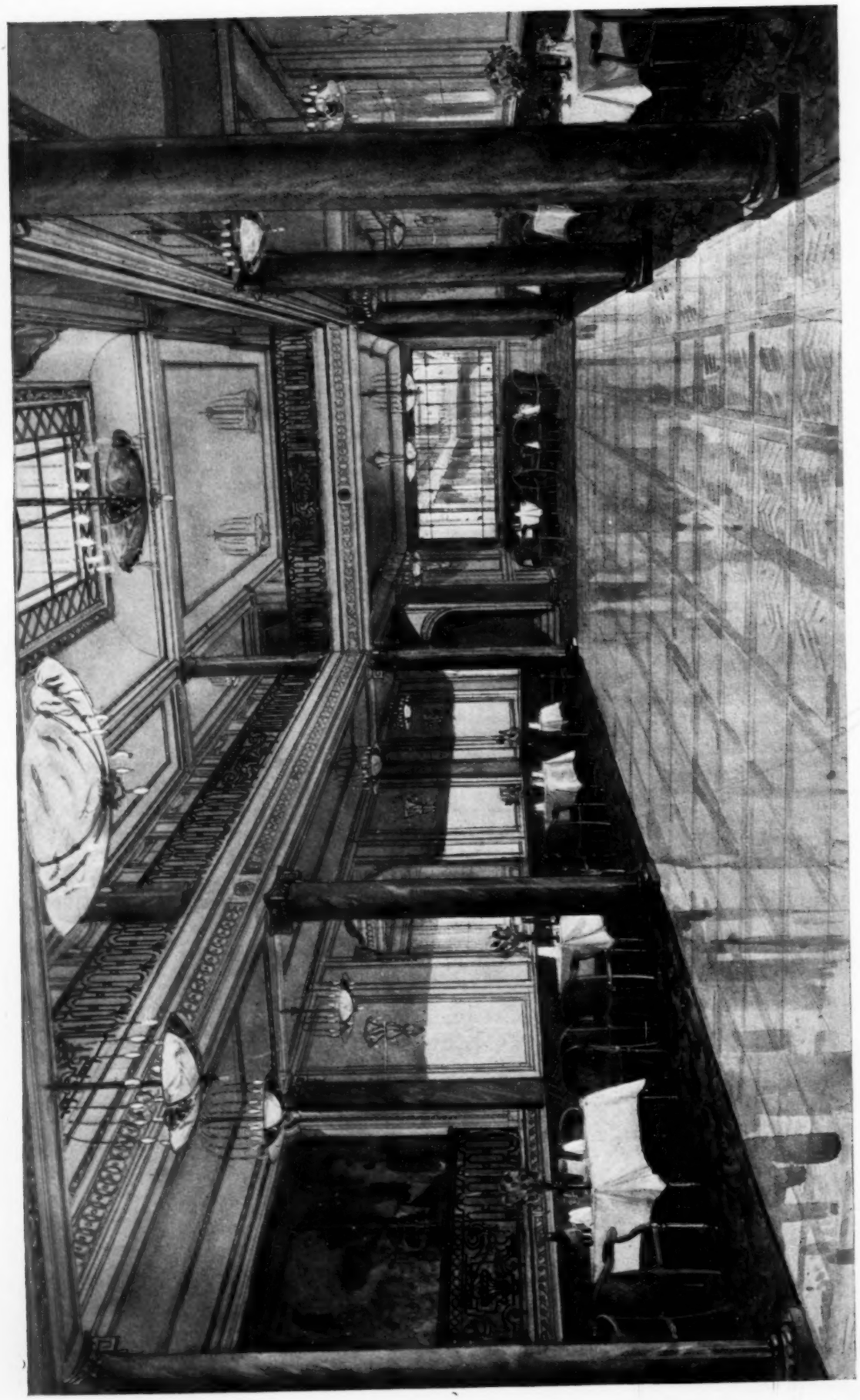
The building and decorations were designed and carried out under the supervision of the architects, Messrs. A. H. Durand and W. Allison, AA.R.I.B.A., of London. The general contractors were Messrs. Douglass Halse & Co., Ltd., of Woolwich, S.E., and the following sub-contractors were employed:—Modellers and Plastic Decoration Co. (fibrous plaster, decorative woodwork, mirrors, &c.), Waring & Gillow, Ltd. (furniture, carpets, curtains, &c.), Young, Austen & Young (heating and ventilation), Bagués, Ltd. (electric light fittings, wrought-iron balustrades and marquise), Constructeurs Associés de Paris, also C. Secchi & Co. (kitchen equipment, sinks, &c.), Mackallen Heating Co. (electric wiring), Doulton & Co., Ltd. (terra-cotta), Measures Bros. (1911), Ltd. (steelwork), J. Whitehead & Sons, Ltd. (marble-work and terrazzo paving), Bellmen, Ivey & Carter, Ltd. (scagliola columns), Dent & Hellyer, Ltd., also Musgraves (Liverpool), Ltd. (sanitary goods), Lightfoot Refrigeration Co., Ltd. (refrigerating plant), Smith, Major & Stevens, Ltd. (lifts), C. Harvey & Co., also Yannedis & Co. (door furniture), Lion Foundry Co., Ltd. (iron fire-escape staircases), Sturtevant Engineering Co., Ltd. (vacuum cleaning plant), G. Henney (wrought-iron gates and metal laylights), Welstead & Co. (metal windows), Leckhampton Quarries Co., Ltd. (stone linings), W. H. Heywood & Co. (patent roof glazing and skylights), National Flooring Co. (dance floor and parquet flooring), Haywards, Ltd. (fire-resisting glazing), Salter, Edwards & Co. (asphalt), Reliance Telephone Co. (intercommunication telephones), Indented Bar and Concrete Engineering Co. (steel reinforcement), Adams, James & Son, Ltd. (floor-springs, panic bolts).



Liverpool College Competition: Second Premiated Design.



Liverpool College Competition: Second Premiated Design. Messrs. Crickmer & Foxley, Architects.



The Ambassador Club, Conduit-street, W.: The Restaurant.

Messrs. A. H. Durand & W. Allison, A.A.R.I.B.A., Architects.

The Ambassador Club, Conduit-street, W.

MESSRS. A. H. DURAND & W. ALLISON, AA.R.I.B.A., Architects.

UNIV. OF MICH.

THE BUILDING TRADES EXHIBITION

THE International Building Trades Exhibition will be opened at Olympia, on April 14, at 12 o'clock, by the Lord Mayor of London, Sir William Pryke, accompanied by the Sheriffs. Mr. E. Guy Dawber, President of the R.I.B.A., will preside at the ceremony, and a vote of thanks to the Lord Mayor will be proposed by Sir Kingsley Wood, M.P., Parliamentary Secretary to the Ministry of Health. The Exhibition will remain open until April 28. We give below a complete list of exhibitors, together with their Stand numbers, and on the reverse side plans of the Main and the New Hall.

A

Acme Patent Ladder Co. (Stand 166, Row J).
Adamite Co., Ltd. (Stand 95, Row E).
Adams, Robert (Stand 53, Row D).
Aerograph Co., Ltd. (Stand 10, Row B).
Aeronautical & Panel Plywood Co., Ltd. (Stand 152, Row H).
Alexander, Herbert, & Co., Ltd. (Stand 212, Row L).
Allan Taylor & Co. (Stand 286, Row T).
Allardstown & Co. (Stand 77, Row D).
Allen, W. G. & Sons (Tipton), Ltd. (Stand 67, Row D).
Allen-Liversidge, Ltd. (Stand 289, Row T).
Amphora Art Pottery & Tile Co., Ltd. (Stands 75 and 76, Row D).
Anderson, D. & Son, Ltd. (Stand 112, Row F).
Anti-Leak Tap Co., Ltd. (Stand 26a, Row C).
"Architect and Building News," The (Stand 19, Row B; Stand 100, Row E).
Architectural Drawings (Stand 273, Row R).
Architectural Press, Ltd. (Stand 91, Row E).
Art Decorations, Ltd. (Stand 202, Row K).
Art Metal Equipment Co., Ltd. (Stand 104, Row F).
Ashley Trading Co., Ltd. (Stand 88, Row E).
Athena Composition Flooring Co. (Stand 131, Row G).
Australia Concrete Machinery & Engineering Co., Ltd. (Stand 7, Row B).

B

Bangers' ConBloc Co. (Stand 168, Row J).
Barnett, H., & Co. (Stand 160, Row H).
Bath Artcraft, Ltd. (Stand 173, Row J).
Batsford, B. T., Ltd. (Stand 84, Row E).
Beaver Board Co., Ltd. (Stand 96, Row E).
Bells Poilite & Everite Co., Ltd. (Stand 257, Row Q).
Bestplug Co. (Stand 236, Row O).
Blundell, Spence & Co., Ltd. (Stand 260, Row Q).
Board, John, & Co., Ltd. (Stand 156, Row H).
Borst Bros., Ltd. (Stand 120, Row F).
Boulton & Paul, Ltd. (Stand 295, Row T; Stand 125, Row G).
Bratt, Colbran & Co. (Stand 213, Row L).
Briggs, Wm., & Sons, Ltd. (Stand 33, Row C).
Brilliant Sign Co. (Stand 176, Row J).
"British Builder" (Stand 242, Row P).
British & Colonial Chemical Co., Ltd. (Stands 296 and 297, Row T).
British Fibrocement Works, Ltd. (Stand 136, Row G).
British Plaster Board, Ltd. (Stand 279, Row S).
British Steel Piling Co., Ltd. (Stand 305, Row V).
Brown, William, & Son, (Stand 300, Row V).
Bryce, White & Co., Ltd. (Stand 146, Row H).
Buckland Sand & Silica Co., Ltd. (Stand 132, Row G).
Builders' and Contractors' Plant, Ltd. (Stand 247, Row P).
"Builders' Merchants' Journal," (Stand 209, Row K).
"Builder, The," Ltd. (Stand 118, Row F; Stand 232, Row N).

C

Callender, Geo. M., & Co., Ltd. (Stand 62, Row D).
Cardon & Co., Ltd. (Stand 49, Row C).
Carson, Walter, & Sons (Stand 198, Row K).
Carter & Co., Ltd. (Stand 102, Row F; Stand 144, Row G).
Caxton Name Plate Co. (Stand 225, Row M).
Cayless, Bros. (Battersea) (Stand 159, Row H; Stand 203, Row K).
Cement Marketing Co., Ltd. (Stand 111, Row F).
Central Chemicals, Ltd. (Stand 187, Row J).
Chadwick & Shapcott, Ltd. (Stand 137, Row G).
Changeable Sign Co., Ltd. (Stand 5, Row B).
Churchill, Chas., & Co., Ltd. (Stand 225a, Row N).
Clarkhills, Ltd. (Stand 211, Row L).
Cohen, A., & Co., Ltd. (Stand 282, Row S).
Collier, Arthur, (Stand 174, Row J).
Colthurst Symons & Co., Ltd. (Stand 182, Row J).
Compendium Publishing Co. (Stand 45, Row C).
Concrete Manufacturing Co. (Battersea), Ltd. (Stand 223, Row M; Stand 284 Row T).
Cooksley, A. (Stand 86, Row E).
Cornes & Haighton, Ltd. (Stand 218, Row L).
"Country Life," Ltd. (Stand 169, Row J).
Courtrai du Nord Tile Co. (Stand 277, Row S).
Crittall Manufacturing Co., Ltd. (Stand 153, Row H).
Cuirass Products, Ltd. (Stand 179, Row J).

D

Danckaerts Woodworking Machinery, Ltd. (Stand 197, Row K).
Davies, Bros. (Stand 288, Row T).
Davis Gas Stove Co., Ltd. (Stands 301 and 302, Row V).
Davis, William (Stand 300, Row V).
Dawson Fawcett, J. (Darlington), Ltd. (Stand 299, Row V).
Decorative Art Journals Co., Ltd. (Stand 263, Row R).
"Decorator, The," (Stand 24, Row B).
Dening & Co., Ltd. (Stand 71, Row D).
Diamond Tread Co., Ltd. (Stand 178, Row J).
Dominion Machinery Co., Ltd. (Stand 69, Row D).
Door Unit Co., Ltd. (Stand 85, Row E).
Doulton & Co., Ltd. (Stand 154, Row H).
Drew, Clark & Co. (Stand 195, Row K).
Dreyfus, A., Ltd. (Stand 127, Row G).
Dry Rot & Fire Prevention Co., Ltd. (Stand 161, Row H).
Drytone, Ltd. (Stand 56, Row D).

E

Eagle Range & Grate Co. (Stand 12, Row B).
"Easilit" Blow Lamp Co., Ltd. (Stand 24b, Row B).
Easiwork, Ltd. (Stands 210 and 216, Row L).
Eclipse Rail-Track Ladder Co., Ltd. (Stand 124, Row F).
Educational Supply Association, Ltd. (Stand 292, Row T).
Electromobile, Ltd. (Stand 163, Row H).
Elliott, Samuel, & Sons (Reading), Ltd. (Stand 181, Row J; Stand 248, Row P).
Elsan Manufacturing Co. (Stand 15, Row B).
Emdeca Metal Decoration, Ltd. (Stand 115, Row F).
Evans & Ronald, Ltd. (Stand 25, Row C).
Ewart & Son, Ltd. (Stand 189, Row K).
Expanded Metal Co., Ltd. (Stand 142, Row G).
Express Boilers, Ltd. (Stand 21, Row B).

F

Falkirk Iron Co., Ltd. (Stand 215, Row L).
Fawcett Construction Co., Ltd. (Stand 171, Row J).
Fenlon & Son (Stands 27 and 28, Row C).
Fernden Fencing Co., Ltd. (Stand 37, Row C).
Ferodo, Ltd. (Stand 55, Row D).
Field & Field, Ltd. (Stand 303, Row V).
Fleetwood Chemical Co., Ltd. (Stand 157, Row H).
Fouquet, T. B., Etablissements (Stand 224, Row M).
Four Oaks Spraying Machine Co. (Stand 22, Row B).
Fowler, John, & Co. (Leeds), Ltd. (Stand 38, Row C).
Frawley & Coyle, Ltd. (Stand 180, Row J).
Freeman, Joseph, Sons & Co., Ltd. (Stand 278, Row S).

G

Gas Light & Coke Co. (Stands 306, 307, 308, and 309, Row V).
Gelesco Paint Co. (Stand 205, Row K).
Glico Petroleum, Ltd. (Stand 235, Row O).
Gliksten, J., & Son, Ltd. (Stand 89, Row E).
Goodwin, Barsby & Co., Ltd. (Stand 162, Row H).
Granwood Flooring Co., Ltd. (Stand 192, Row K).
Greenway & Ludlow (Stands 243 and 244, Row P).
Guillet, Sons & Co. (Stand 34, Row C).

H

Haighs (Oldham), Ltd. (Stand 199, Row K).
"Hardwareman and Builders' Merchant" (Stand 236a, Row O).
Harling, W. H. (Stand 272, Row R).
Hart, H. (Stand 50, Row D).
Harvie Corporation, The, Ltd. (Stand 128, Row G).
Haskins, Samuel, & Bros., Ltd. (Stand 143, Row G).
Helme, P. E., & Co. (Stand 207, Row K).
Hemel Hempstead Patent Brick Co., Ltd. (Stand 113, Row F).
Heydon, Harold & Co., Ltd. (Stand 125a, Row G).
Hilder & Co. (Stand 24a, Row B).
Hitchins, W., & Co., Ltd. (Stand 285, Row T).
Hope Products (Stand 30, Row C).
Howard & Hill, Ltd. (Stand 261, Row Q).
"Hurry" Water Heater Co. (Stand 190, Row K).
Hyder & Sons (Stand 26, Row C).

I

"Illustrated Carpenter and Builder" (Stand 29, Row C).
Indented Bar & Concrete Engineering Co., Ltd. (Stand 270, Row R).
Interoven Stove Co., Ltd., The (Stand 222, Row L).
"Irish Builder and Engineer" The (Stand 196, Row K).

J

Jennings (Bristol), Ltd. (Stand 87, Row E; Stands 237 to 241, Row O).
Johnson, G., Bros. (Stand 43, Row C).
Jones, T. C., & Co., Ltd. (Stand 246, Row P).
Jones & Attwood, Ltd. (Stand 39, Row C).
Joyce, W. N. (Stand 204, Row K).

K

Kelly's Directories, Ltd. (Stand 23, Row B).
Kennedy, W. (Stand 47, Row C).
Kerner, Greenwood & Co., Ltd. (Stand 44, Row C).
Keston Park Estates (Stand 265, Row R).
Key Engineering Co., Ltd., The (Stand 46, Row C).
King, J. A., & Co., Ltd. (Stand 105, Row F).
Kirkwood, Craig & Co., Ltd. (Stand 16, Row B).
Kitchenette, Ltd. (Stand 210, Row L).
Kleine Patent Fire Resisting Flooring Syndicate, Ltd. (Stand 110, Row F).
Knowles, John, & Co. (London), Ltd. (Stand 70, Row D).

L

afarge Aluminous Cement Co., Ltd. (Stand 267 Row R).
amb, W. T., & Sons (Stand 94, Row E; Stand 253, Row Q).
ang, Jules, & Son (Stand 262, Row Q).
angley London, Ltd. (Stand 148, Row H).
atham, James, Ltd (Stand 140, Row G; Stand 149, Row H).
awrence, Thos., & Sons (Stand 145, Row G).
e & Fouracre (Stand 66, Row D).
eds Fireclay Co., Ltd. (Stand 98, Row E).
ewbart Co. (Stand 134, Row G).
ner Concrete Machinery Co. (Stand 275, Row S).
ntott, H. & E. (Stand 32, Row C).
ps, Ltd. (Stand 291, Row T).
verpool Adhesive Paste Co., Ltd. (Stand 172, Row J).
ndon Brick Co. & Forders, Ltd. (Stand 129, Row G).
ndon Exporters & Importers, Ltd. (Stand 294, Row T).
ndon Sand Blast & Decorative Glass Works, Ltd. (Stand 92, Row E).
ndon Warming Co., Ltd., The (Stand 219, Row L).
ve, C., & Sons (Stand 73, Row D).
vell, Y. J., & Son (Stand 265, Row R).

M

Maile, G., & Sons, Ltd. (Stand 61, Row D).
Major, H. J., & C., Ltd. (Stand 177, Row J).
Mallinson, Wm., & Sons, Ltd. (Stand 152, Row H).
Mander Bros., Ltd. (Stand 138, Row G).
Manu-Marble Co. (Stand 122, Row F).
Marble Mosaic Co., Ltd. (Stand 106, Row F).
Marchant Bros., Ltd. (Stand 14, Row B).
Marryatt & Scott, Ltd. (Stand 101, Row E).
"Master Builder and Associations' Journal" (Stand 78, Row E).
Marx, E. (Stand 68, Row D).
McNeill, F., & Co., Ltd. (Stand 175, Row J).
Melhuish, Rd., Ltd. (Stand 58, Row D; Stand 231, Row N).
Merchant Trading Co., Ltd. (Stand 258, Row Q).
Middleton Fireclay Works, The (Stand 90, Row E).
Minimax, Ltd. (Stand 249, Row P).
Mitchell, Thomas, & Son (Stand 300, Row V).
Mond Tar By-Products Syndicate, Ltd. (Stand 200, Row K).
Morton, Francis, Junr., & Co. (Stand 186, Row J).
Moule's Patent Earth Closet Co., Ltd. (Stand 117, Row F).

N

"National Builder, The," (Stand 283, Row S).
National Ladders, Ltd. (Stand 226a, Row M).
Neatex Curtain Rail Co. (Stand 155, Row H).
Nettlefold & Sons, Ltd. (Stand 107, Row F).
New Geysers, Ltd. (Stand 201, Row K).
Nicholson, W. T., & Clipper Co., Ltd. (Stand 183, Row J).
Novocrete & Cement Products Co., Ltd. (Stand 271, Row R).
North British Rubber Co., Ltd. (Stand 274, Row S).

O

Odling, Anselm & Sons, Ltd. (Stand 103, Row F).
Oliver, Wm., & Sons, Ltd. (Stands 2, 3 and 4, Row A).

P

Paper Sacks, Ltd. (Stand 281, Row S).
Parker, Frederick (Stand 130, Row G).
Parsons, Thos., & Sons (Stand 133, Row G).
Patent Tip-up Bath Co. (Stand 221, Row L).
Penfold Wire-Fencing (Stand 255, Row Q).
Perkin & Co., Ltd. (Stand 165, Row H).
Peters, C. A., Ltd. (Stand 64, Row D).
Peters, G. D., & Co., Ltd. (Stand 254, Row Q).
Pickles, John, & Son (Engineers), Ltd. (Stand 123, Row F).
Plastering, Ltd. (Stand 259, Row Q).
Plimpton, Lieut.-Col. (Stand 293, Row T).
Pinchin, Johnson & Co., Ltd. (Stand 135, Row G).
Pollard, E., & Co., Ltd. (Stand 150, Row H).
Pollard Engineering Co., Ltd. (Stand 31, Row C).
Potterton, Thos. (Stand 41, Row C).
Powell, Greenhough & Co., Ltd. (Stand 72, Row D).
"Practical Building" (Stand 206, Row K).
Pre-cast Concrete, Ltd. (Stand 270, Row R).
Presto Lock Co. (Stand 116, Row F).
Progrès Building Material Supply Co., Ltd. (Stand 121, Row F).

Q

Quicksey Cabinet Manufacturing Co. (Stand 63, Row D).

R

Rawlplug Co., Ltd. (Stand 54, Row D).
Reith Steel House (Stand 227 and 228, Row M).
Rhodes Chains, Ltd. (Stand 40, Row C).
Ripon Steel Co., Ltd. (Stand 6, Row B).
Rippers, Ltd. (Stand 52, Row D).
Robinson, Thos., & Son, Ltd. (Stand 170, Row J)
Roberts Adlard & Co. (Stand 269, Row R).
Ronuk, Ltd. (Stand 109, Row F).
Rubber Growers' Association (Incorporated) (Stands 79 to 82, Row E).
Ruberoid Co., Ltd. (Stand 147, Row H).

S

Sagar, J., & Co., Ltd. (Stand 1, Row A).
Sage, Fredk., & Co., Ltd. (Stand 256, Row Q).
Sanderson, Arthur, & Sons, Ltd. (Stand 108, Row F).
Scaffolding (Great Britain), Ltd. (Stand 51, Row D).
Sheet-Metal Products Co. of Canada, Ltd. (Stand 165b, Row H).
Shepherd, J. A., & Co., Ltd. (Stand 287, Row T)
Silicate Paint Co., The (Stand 97, Row E).
Simplete Cabinet Co., Ltd. (Stand 17, Row B).
Simplex Floor Planing & Treatment Co. (Stand 158, Row H).
Sissons Bros., Ltd. (Stand 266, Row R).
Skylux, Ltd. (Stand 20, Row B).
Slingsby, H. C. (Stand 48, Row C).
Smith, Samuel, & Sons, Ltd. (Stand 217, Row L).
Smith, Sidney, & Blyth, Ltd. (Stand 9, Row B).
Smith, Thomas, & Son (Stand 276, Row S).
Smith & Wellstood, Ltd. (Stand 220, Row L).
Somerset Trading Co., Ltd., The (Stand 93, Row E).
Soole & Son, Ltd. (Stand 188, Row J).
Stainax Co. (Stand 165a, Row H).
Staines Kitchen Equipment Co., Ltd. (Stand 214, Row L).
Standard Catalogue Co., Ltd. (Stand 35, Row C)
Standard Metal Window Co. (Stand 280, Row S).
Stanley Bros., Ltd. (Stand 139, Row G).
Stedman, W. T. (Stand 300, Row V).
Stephen, A., & Sons, Ltd. (Stands 227 and 228, Row M).
Stephens & Carter, Ltd. (Stand 245, Row P).
Stooke & Sparks, Ltd. (Stand 13, Row B).
"Stone Trades Journal" (Stand 290, Row T).
Stothert & Pitt, Ltd. (Stand 126, Row G).
"Structural Engineer" (Stand 264, Row R).
Students' Finished Work (Stands 251 and 252, Row P).
Sussex Brick & Estates Co., Ltd. (Stand 184, Row J).

T

Tann, John, Ltd. (Stand 42, Row C).
Tella Co., Ltd. (Stand 18, Row B).
Terrano, Ltd. (Stand 304, Row V).
Thacker, R. S., & Co., Ltd. (Stand 167, Row J).
Thames Board Mills, Ltd. (Stand 141, Row G).
Thomas & Bishop, Ltd. (Stand 36, Row C).
Thompson, John, Beacon Windows, Ltd. (Stand 74, Row D).
Tibbett, W. J., Junr. (Stand 125a, Row G).
Torrance & Sons, Ltd. (Stand 191, Row K).
Triangular Construction Co., Ltd. (Stand 8, Row B).
Triplex Foundry, Ltd. (Stand 11, Row B).
Tuke & Bell, Ltd. (Stand 60, Row D).
Turners Bros. Asbestos Co., Ltd. (Stand 151, Row H).

V

Vulcanite, Ltd. (Stand 99, Row E).

W

Wadkin & Co. (Stand 193, Row K).
Waterex Co., Ltd. (Stand 194, Row K).
Waygood-Otis, Ltd. (Stand 114, Row F).
Webb & Foulger (Brush Manufacturers), Ltd. (Stand 185, Row J).
White, Thos., & Sons, Ltd. (Stand 83, Row E).
Willesden Paper & Canvas Works, Ltd. (Stand 119, Row F).
Wills, Samuel, & Co., Ltd. (Stand 65, Row D).
Winget (1924), Ltd. (Stand 233, Row N; Stand 234, Row O).
Wippell, J., & Co., Ltd. (Stand 59, Row D).
Woco Door Co. (Stand 57, Row D).
Wright & Thompson (Stand 164, Row H).

Y

Yorkshire Copper Works, Ltd. (Stand 268, Row R).

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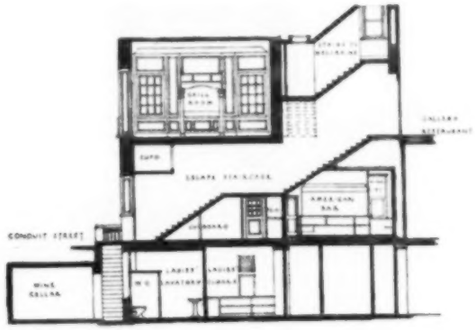
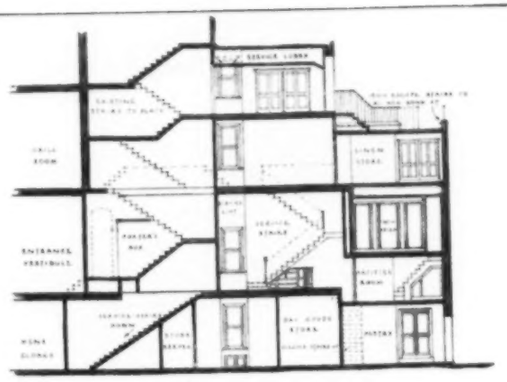
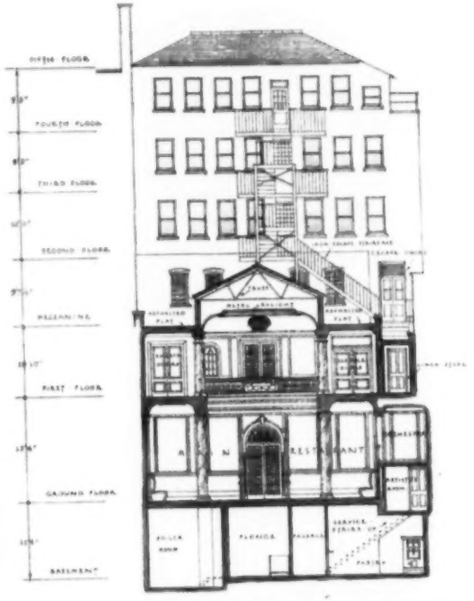


SECTION D.D. THRO' ESCAPE STAIR.



SECTION E.E. THRO' SERVICE STAIR.

LONGITUDINAL SECTION A.A.



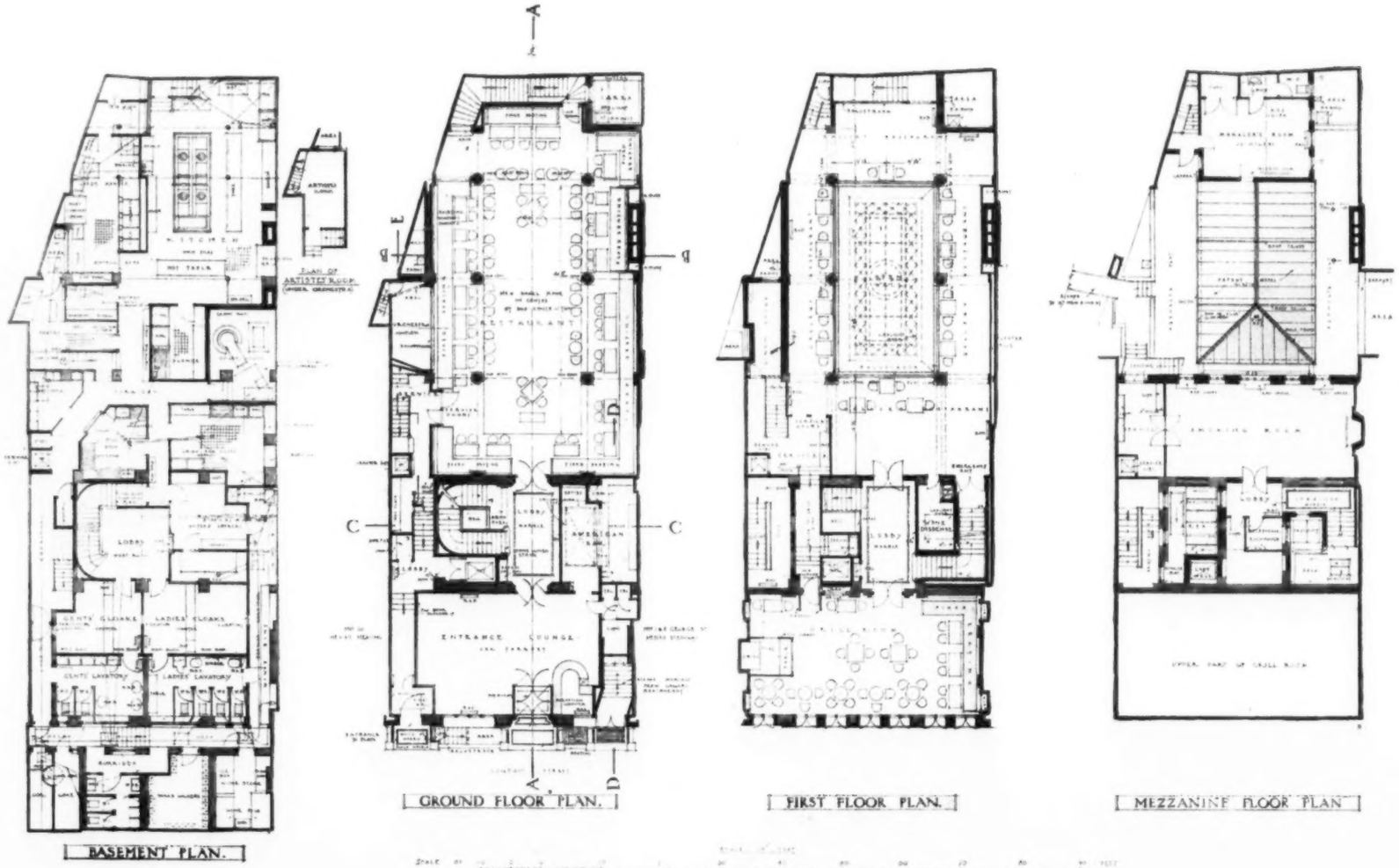
CROSS SECTION B.B. THRO' RESTAURANT.

CROSS SECTION C.C. THRO' MAIN STAIR.

SCALE ONE INCH EQUALS EIGHT FEET

THE AMBASSADOR CLUB & FLATS. Nos 26 & 27 CONDUIT STREET, LONDON. W. 1.

THE AMBASSADOR CLUB & FLATS. Nos 26 & 27 CONDUIT STREET. LONDON. W. 1.



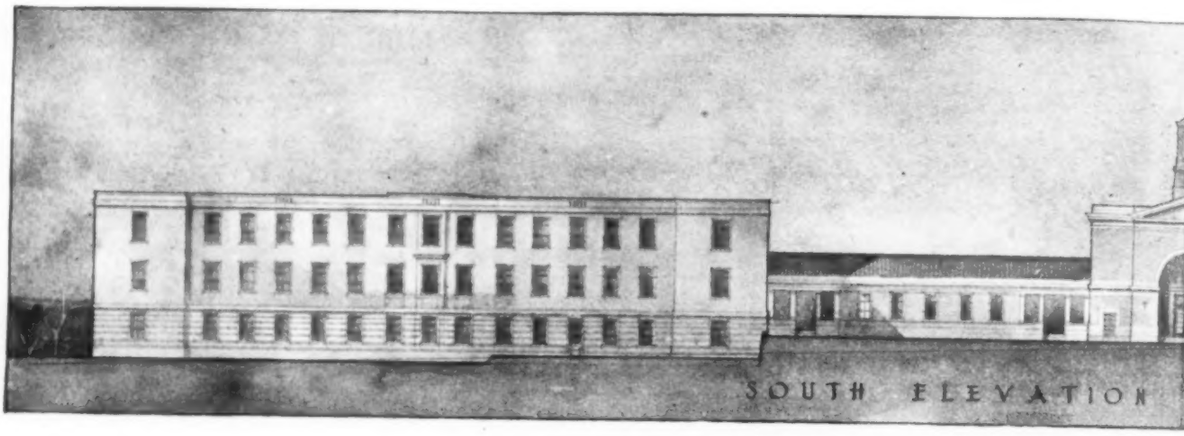
THE AMBASSADOR CLUB. Nº 26 CONDUIT STREET. LONDON. W.1.

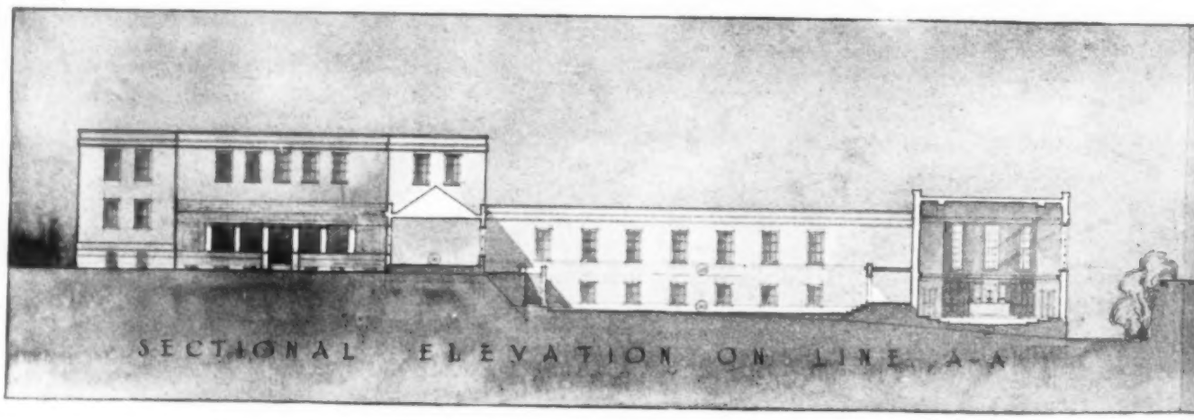
THE AMBASSADOR CLUB AND FLATS, CONDUIT STREET, W.

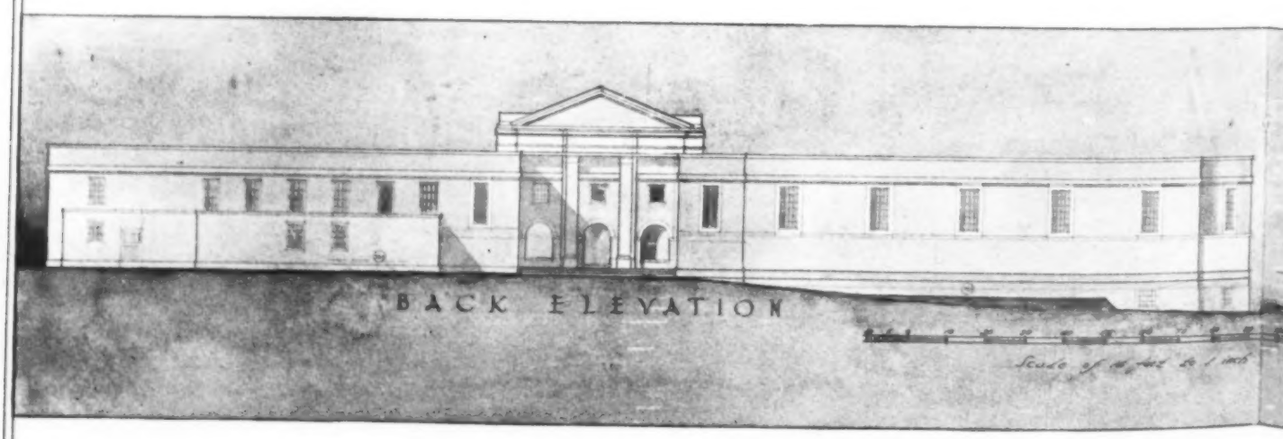
MESSRS. A. H. DURAND & W. ALLISON, AA.R.I.B.A., ARCHITECTS.

UNIV. OF MICH.

PROPOSED BUILDINGS



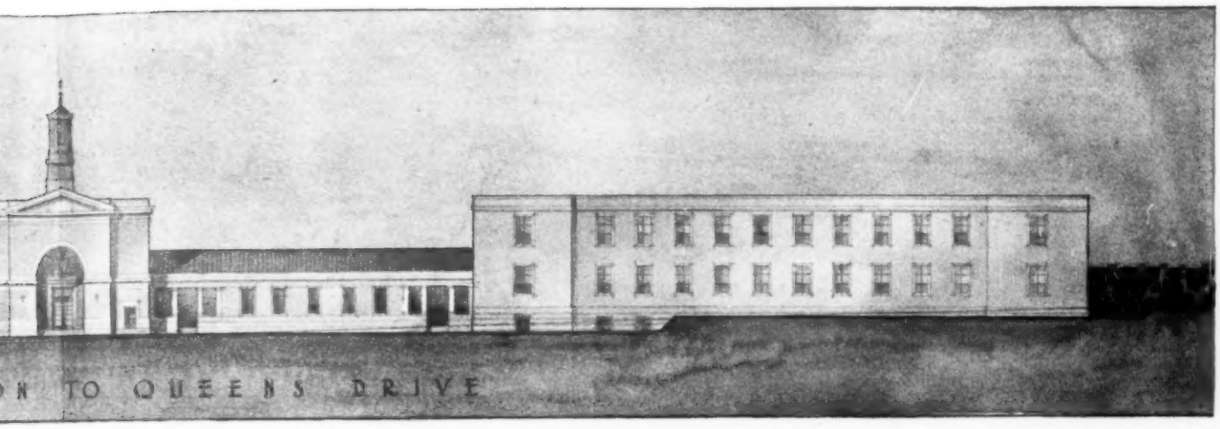


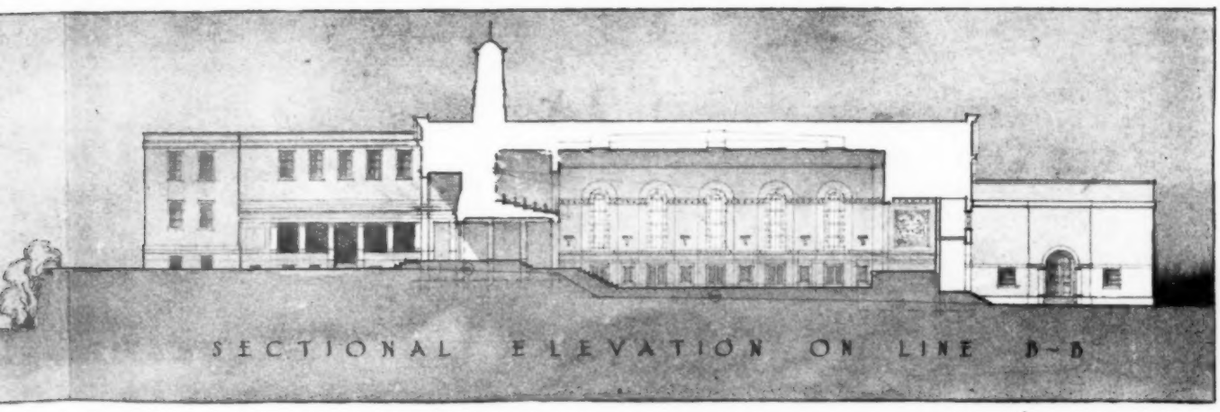


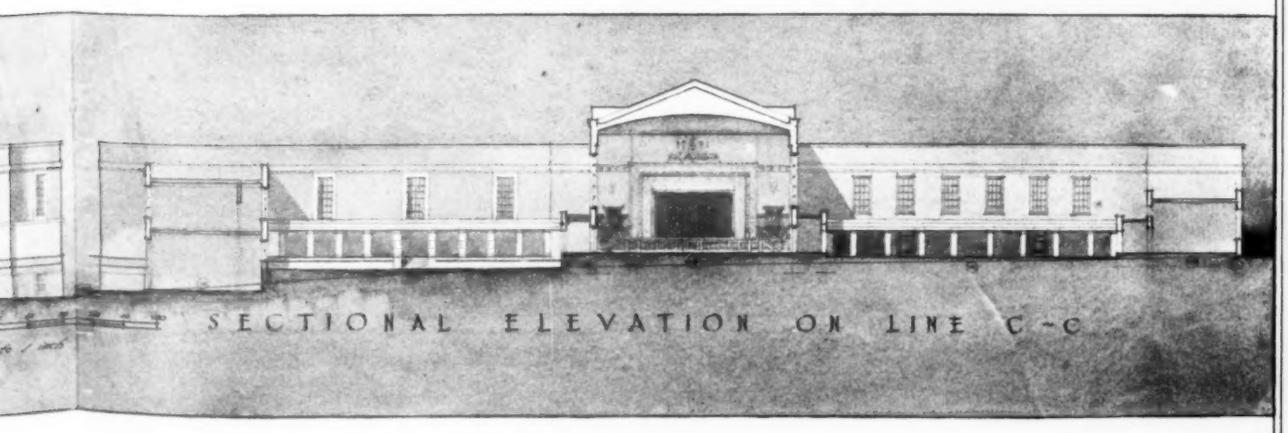
LIVERPOOL COLLEGE COMPETITION:

BY MESSRS. CRICKMER & FOXL

LIVERPOOL COLLEGE

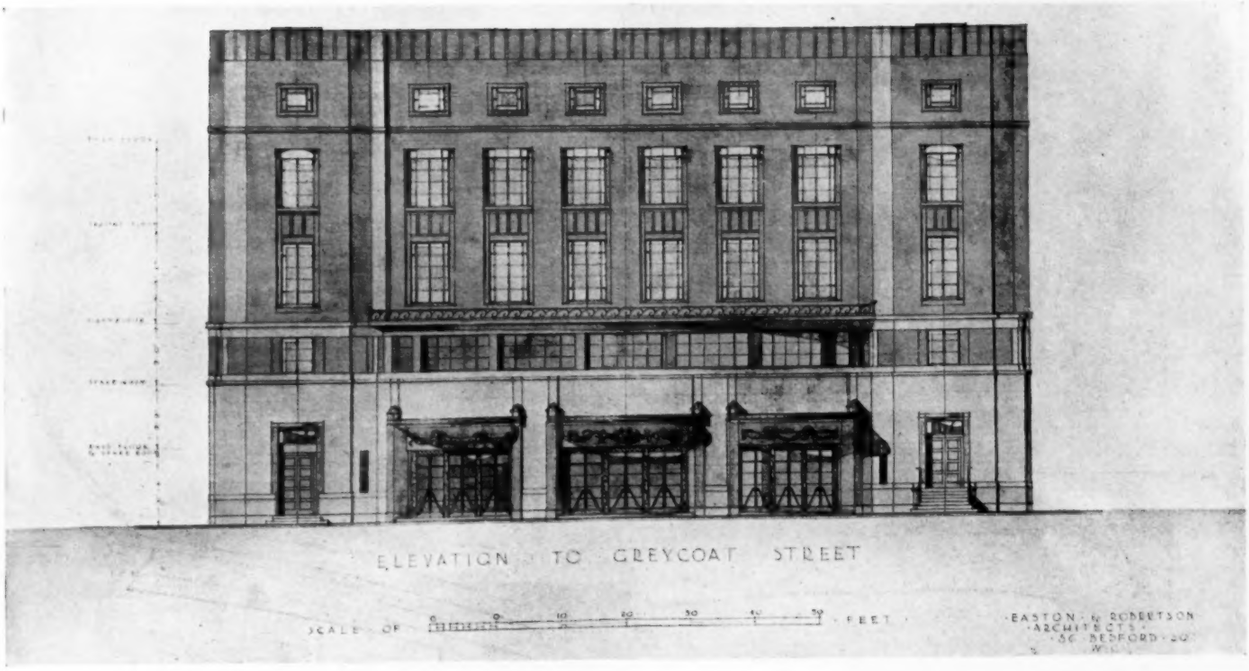


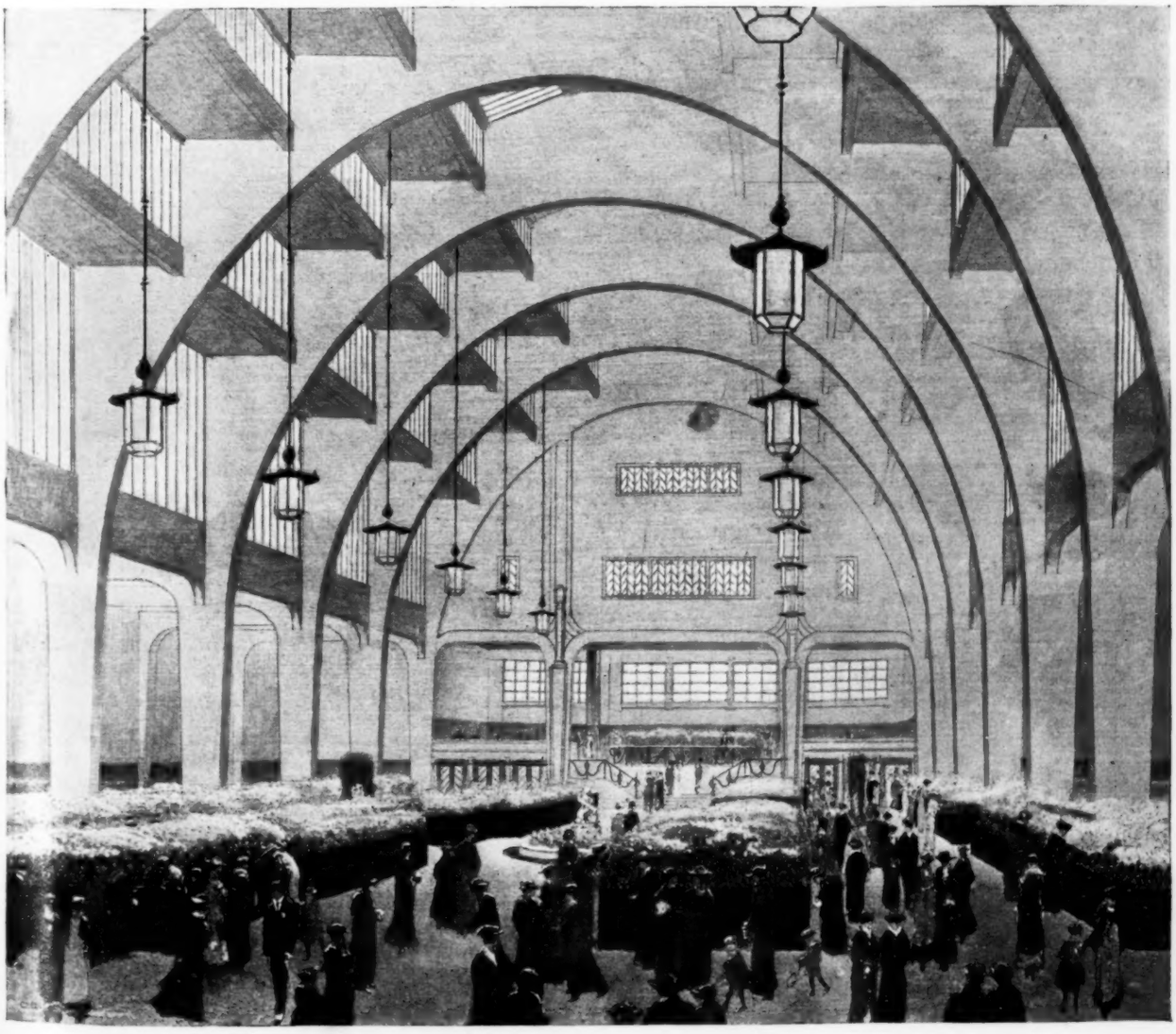




OMPETITION: SECOND PREMIATED DESIGN.

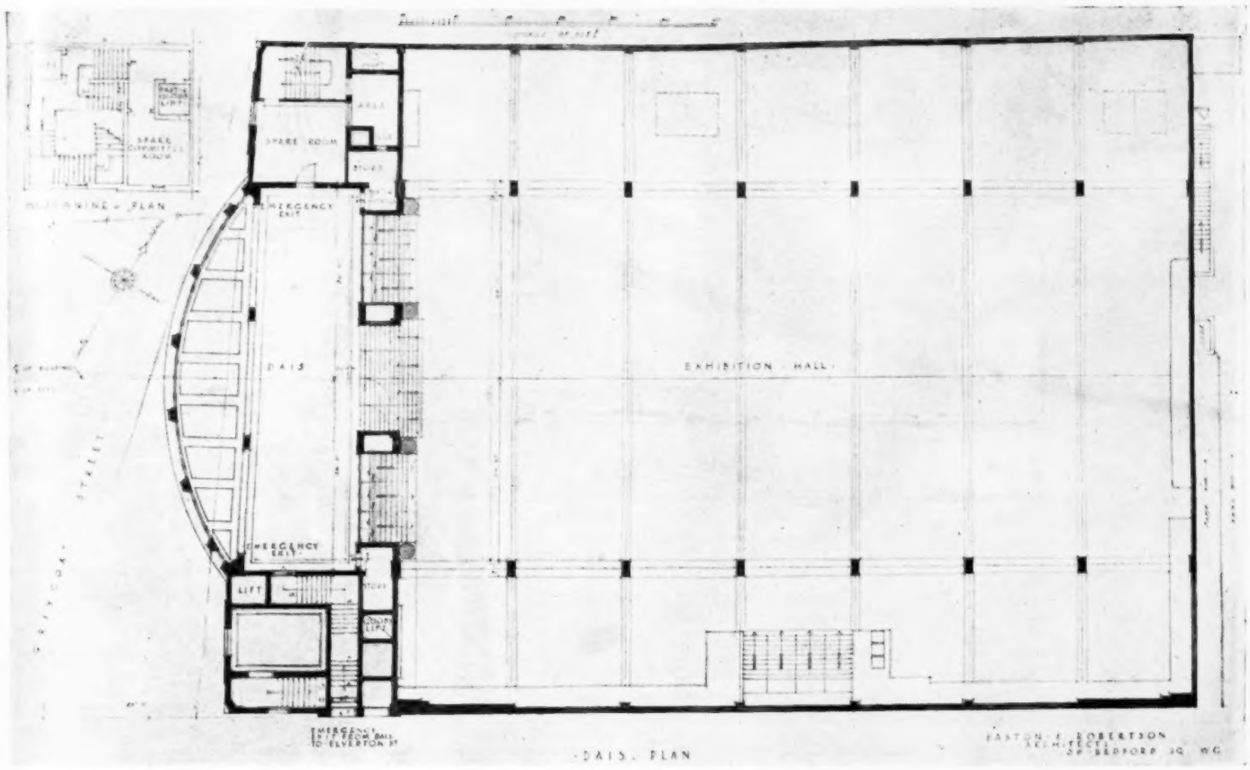
ICKMER & FOXLEY, ARCHITECTS.



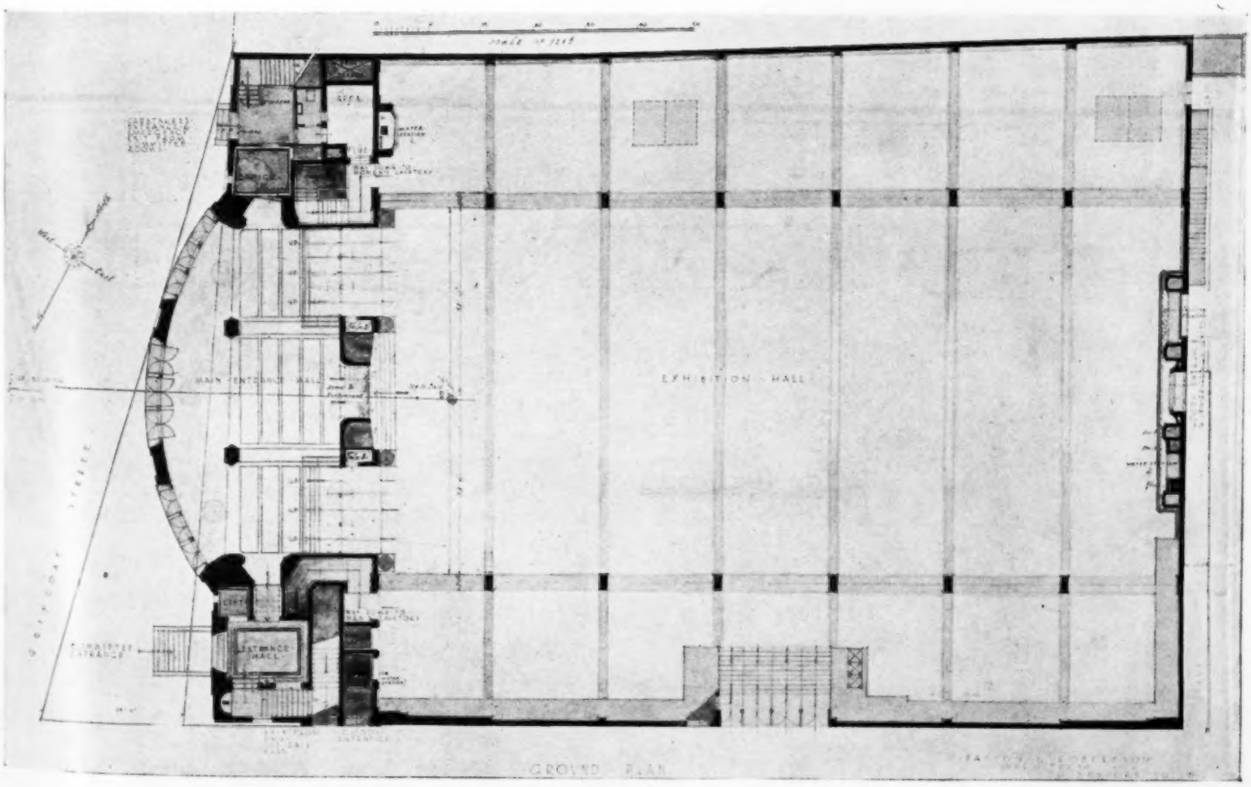


The New Royal Horticultural Hall, Westminster: Accepted Design.

MESSRS. EASTON & ROBERTSON, Architects.



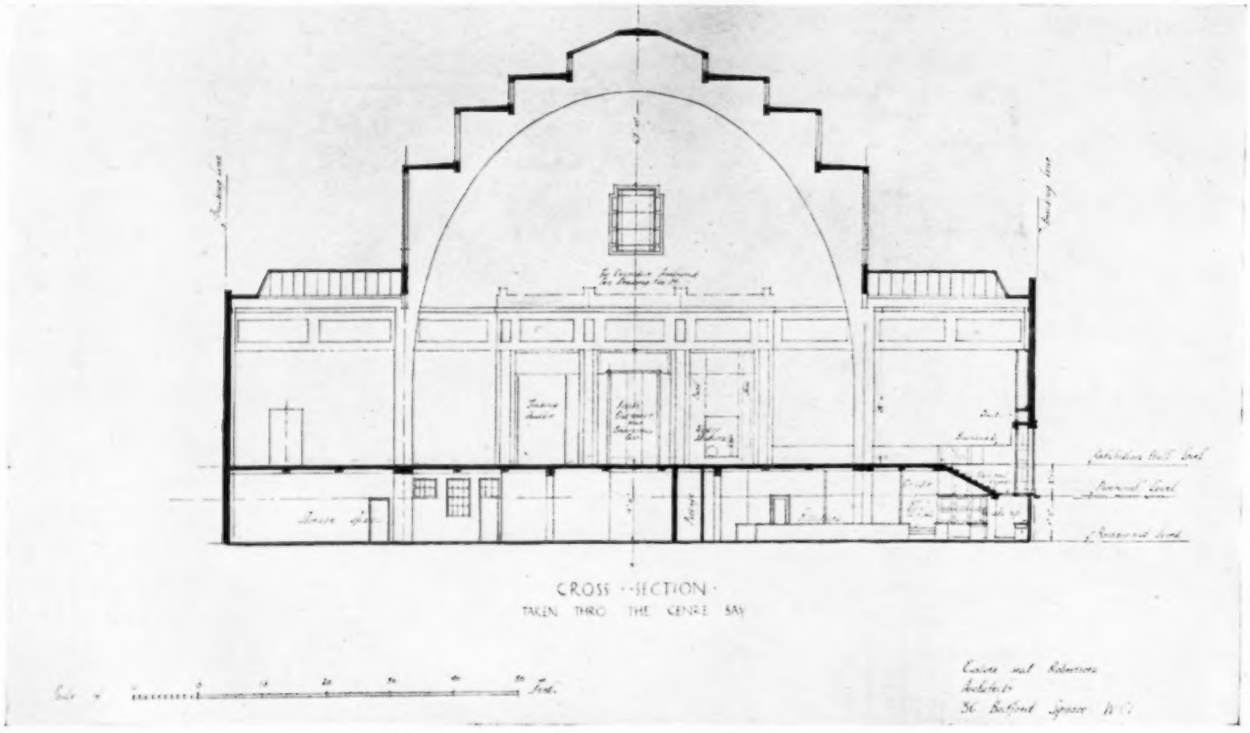
DAIS PLAN.

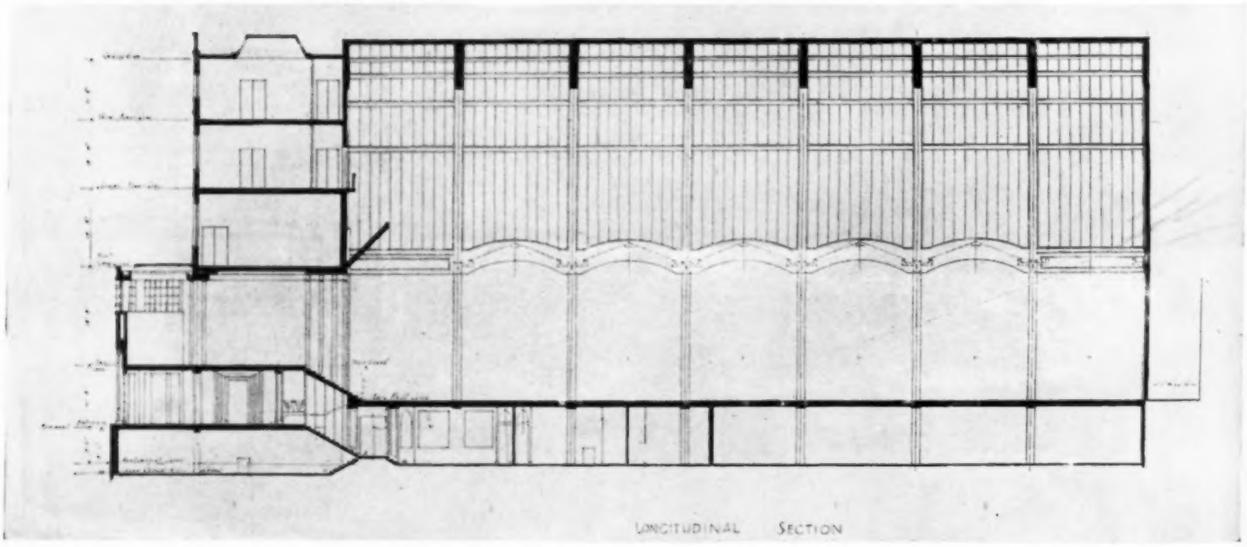


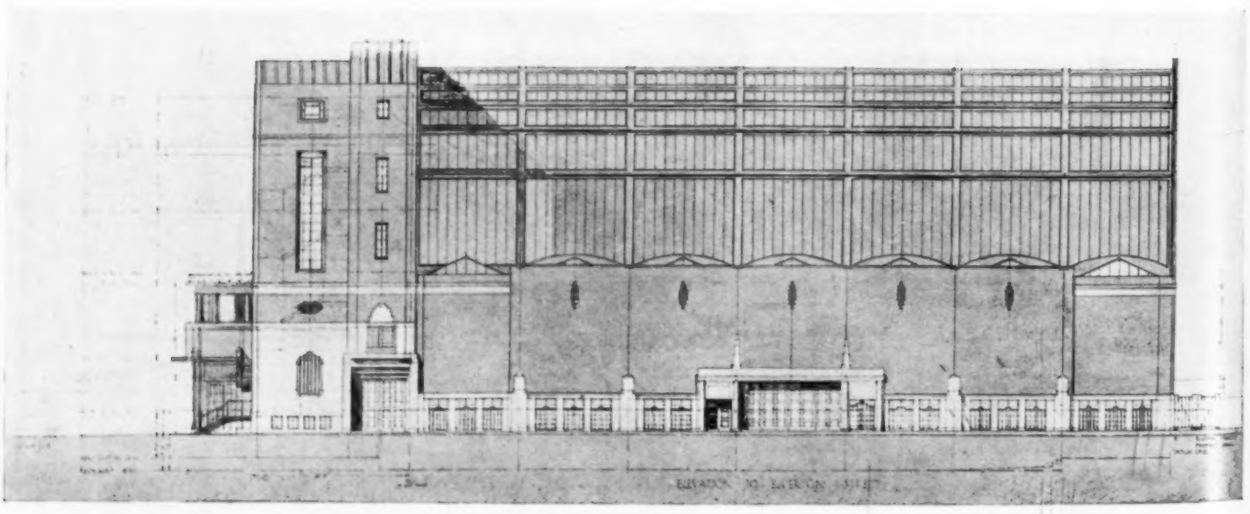
GROUND PLAN.

The New Royal Horticultural Hall, Westminster.

Messrs. Easton & Robertson, Architects.







The New Royal Horticultural Hall, Westminster. Messrs. Easton & Robertson, Architects.

EXHIBITION NOTES

THE R.I.

In the brightest and pleasantest of picture galleries we have now the 117th exhibition of the Royal Institute of Painters in Water Colours, and very attractive at first sight it all is, and with a substratum of able and, here and there, accomplished work. The president, Sir David Murray, occupies the place of honour with his "Autumn on the Windrush" (442), a charming landscape of a poetic delicacy; perhaps too pretty to please the advanced and restless school of the day, but harmonious, broad and luminous. This picture is flanked by two strongly painted pictures of animal life, both of which works are decorative and good. Two daintily treated pictures hang below, an admirably depicted view of Salamanca (444), by H. C. Brewer, who can always be relied on to give true architectural values, and a pleasant view of woodland in spring (441), by Max Ludby. The interior views by W. B. E. Ranken (438 and 445) which flank these other subjects have a merit of colour and drawing which is rather discounted by the somewhat hard and heavy handling. An outstanding picture is the large drawing of St. Paul's (465), by Fred Taylor, in pleasant tones of brown. The drawing on the whole seems sound, but one feels the general effect would have been finer by some sobering down of the details, for in the chair there is a lack of atmosphere and distance. Sir David Murray's "Anglers" (490) is a charming picture in which much better quality than prettiness is to be seen. There are several drawings of architectural interest, such as "The Gateway, St. Valery" (511), by Ernest W. Haslehurst; the "Church, Taorima" (364), by A. T. Nowell; "The Rialto" (316), by Terrick Williams; "St. Paul's" (289), by H. C. Brewer; "Winchester Cathedral" (177), by John Eyre; "High-street, Guildford" (223), by Max Ludby; "Strand-on-the-Green" (238), by Oswald Garside; "A Door in the Mosque Cordova" (254), by Edwin Glasgow; "The Town Gate, Falaise" (138), by Mrs. Averil Burleigh; and "The Castle, Gisors," by E. Guy Dawber. "The Church of the Gesvati, Venice" (15), is one of Terrick Williams's best, the "Renaissance Doorway, Frascati" (113), by E. Guy Dawber; "In Tewkesbury" (102), by Gerald Ackerman; and "St. Jacques, Dieppe," by Harold Swanwick, should also be noted.

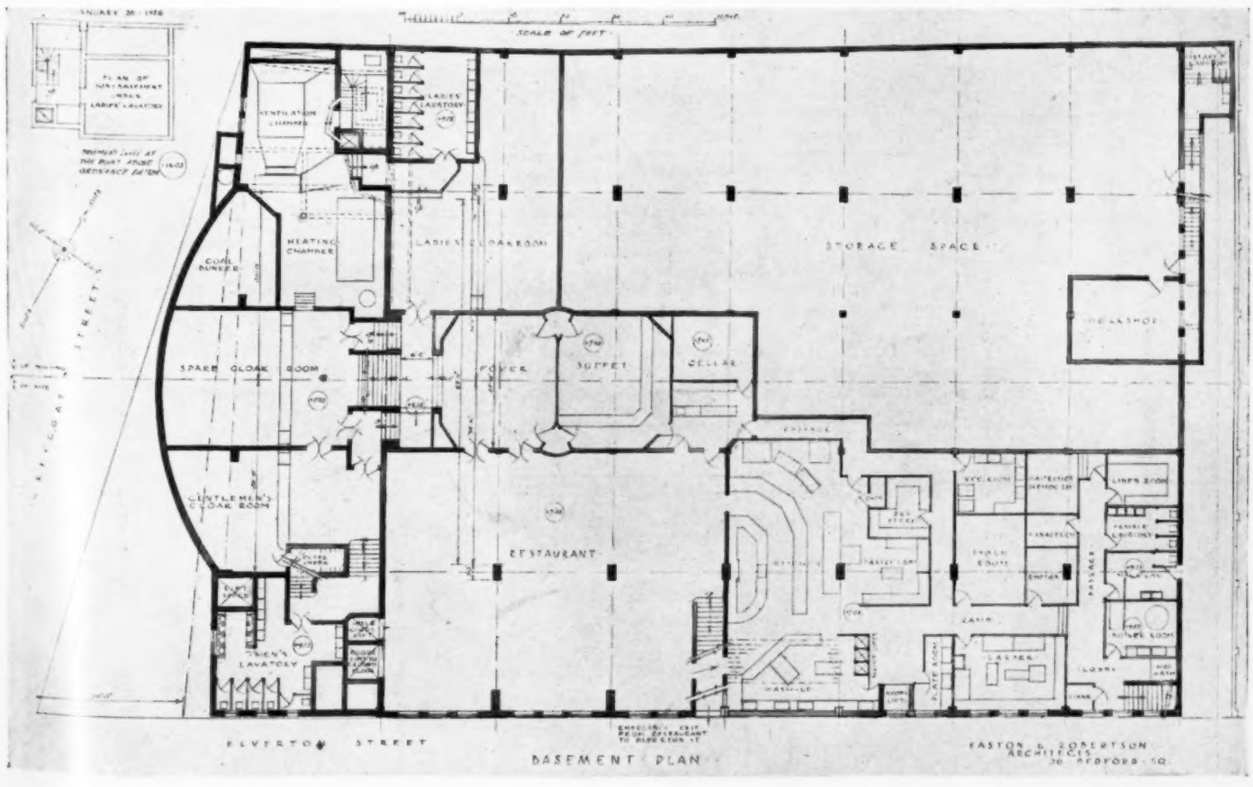
THE NEW ROYAL HORTICULTURAL HALL, WESTMINSTER

For some time prior to 1924 the Council of the Royal Horticultural Society had been fully aware that the present hall in Vincent-square was not adequate for the needs of the Society, both from the point of view of the exhibitors, to whom the Council could not grant sufficient space for their groups, and as the Fellows were prevented by the crowded state of the hall from examining the exhibits in comfort. On going into the matter the committee came to the conclusion that there was no means of enlarging the hall, as the land immediately adjoining was not available. Many suggestions and sites were considered, and the council decided on a site just at the back or east end of the present hall, fronting Greycoat-street and Elverton-street, where there is room to erect an exhibition hall almost twice as big as the present one. After much consideration as to the amount of accommodation which it was necessary to provide, the Council asked several architects of repute to submit plans, and its choice fell upon the design of Messrs. Easton & Robertson, which we illustrate this week.

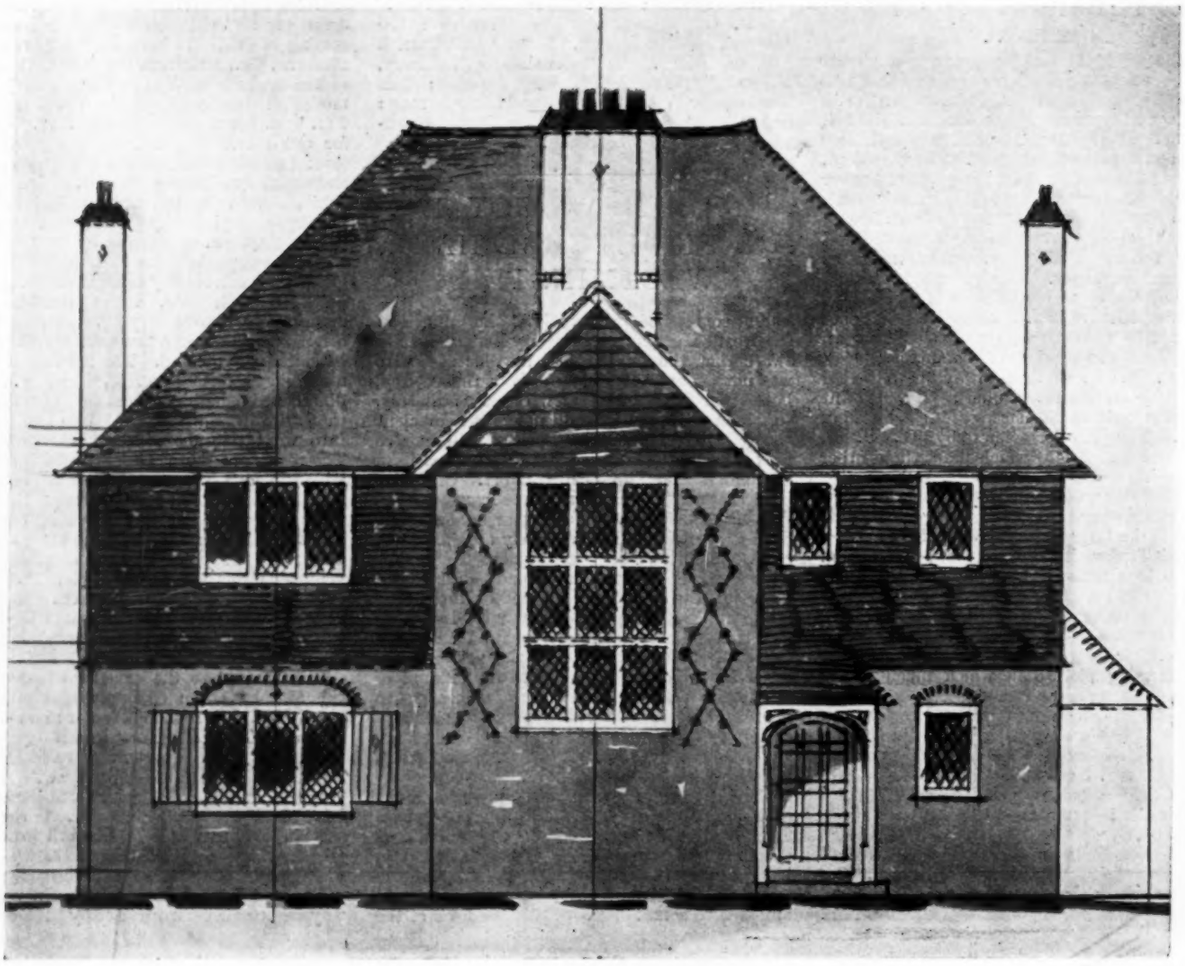
The site, exclusive of a 10 ft. passage on the east side required by the L.C.C., and of a small triangle at the west end, of which building economy and good appearance prevent the use, has an area of some 24,146 sq. ft., and the actual exhibition space in hall proper and dais amounts to some 20,880 sq. ft. The level of the hall itself is 5 ft. above the pavement, an arrangement arising from the desirability of getting a well-lit basement for restaurant, kitchens, &c., and from the fact that the level of the sewer is such that the lavatory accommodation has to be provided not more than 4 ft. 6 in. below the ground surface. Facilities for quick and easy loading are provided for (over and above the eleven ordinary entrances and exits) by a large goods lift, which will raise exhibits from the pavement to the hall level, and by a sloping way at the east end.

In the system of lighting by tiers of vertical windows adopted for the hall, there will be clear glass which can readily be cleaned from outside; on the south side, where sunshine might occasionally prove trying, blinds will be arranged so that in a few minutes the hall can be suitably protected. The horizontal surfaces are solid roofs of concrete, which will greatly diminish the liability to changes of temperature that arise from glass roofs. The hall is divided into what may be called a nave and aisles. The roofing of the whole hall, which is 120 ft. wide, in one span, would have been quite possible, but would have entailed fairly large piers projecting into the hall along the outside walls, and it was considered no more objectionable from the point of view of practical convenience that the main truss piers should stand actually in the hall, while from the point of view of appearance the effect will be more attractive. The side portions are about 24 ft. high and about 24 ft. wide.

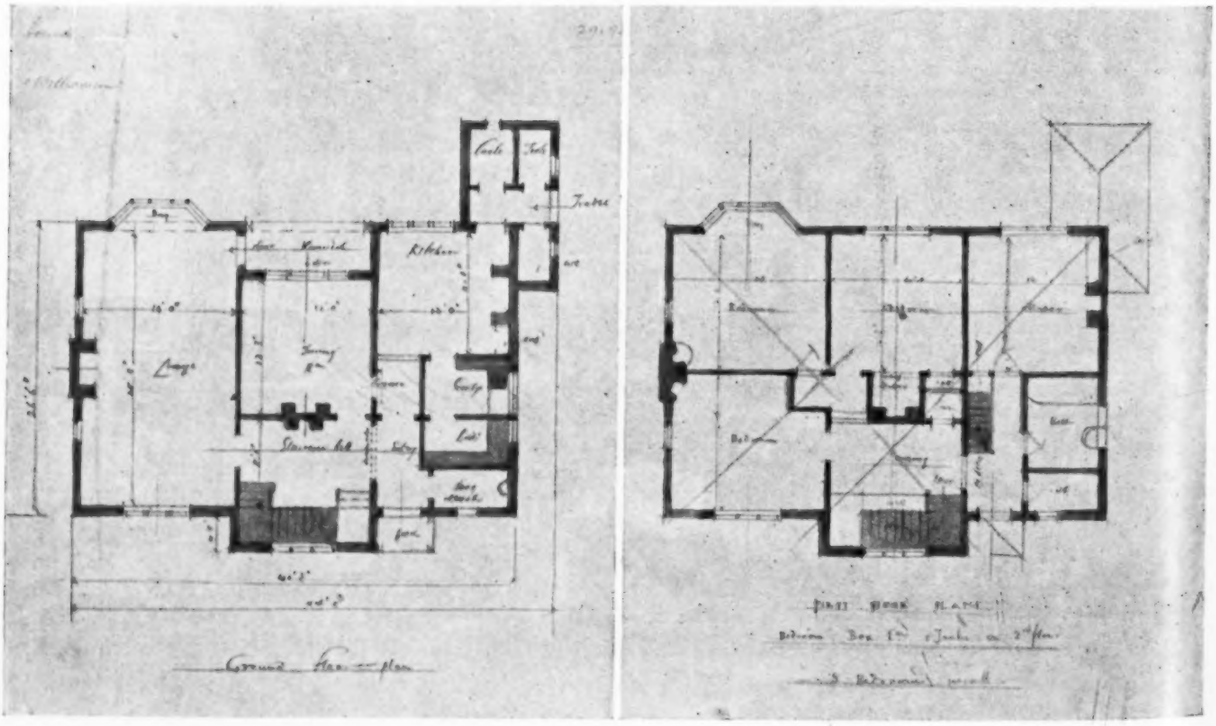
With regard to the exterior of the building the aim has been to express as simply and clearly as possible the character and function of the hall. The walls generally will be faced with brick above a Portland stone base. The framework of the building will be of reinforced concrete, and in the design of this the architects have had as consultant Dr. Oscar Faber. Within the hall this framework will be left without any disguise, indeed, the whole effect of the hall will depend on the direct expression of its structure and materials. In the normal way work will commence early in the summer.



The New Royal Horticultural Hall, Westminster.

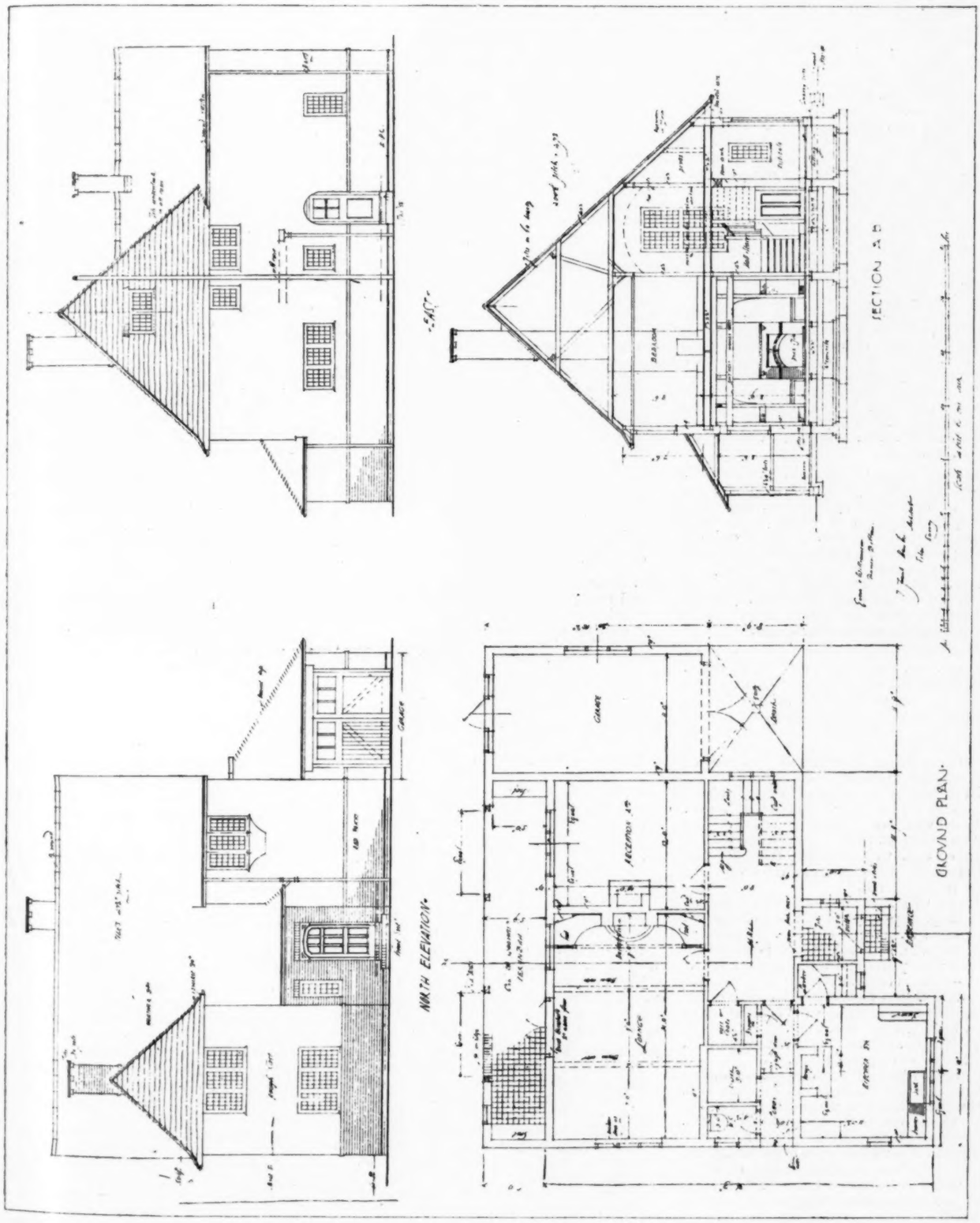


Front to Western Green-road.



House in Western Green-road and Ember-court, Thames Ditton, Surrey.

Mr. Frank Hawkes, Architect.



House in Western Green-road and Ember-court, Thames Ditton, Surrey.

Mr. FRANK HAWKES, Architect.

SPECIFICATIONS.—XIII

By H. V. MILNES EMERSON, A.R.I.B.A.

(Entrance Gates in a fence hung to wood posts; the posts buried in ground with cill, cross-pieces and struts, or with the posts bedded in concrete 3 ft. to 4 ft. below ground.)

230. The gates in fence to have 8 in. by 8 in. wrot all round oak posts, carried down 6 ft. below ground line, with shaped top. To have 9 in. by 4 in. sole pieces, 4 in. by 4 in. struts, and 8 in. by 4 in. chocks spiked on. Cill piece between posts under roadway to be 9 in. by 4 in. fitted between similar chocks spiked to posts. Form spurs out of natural bent oak 7 in. by 5 in., frame into posts and carry 2 ft. below ground and bed in concrete. Fill in to gate posts with chalk well rammed.

(The gates to be as before described.)

The gates in fence to have 8 in. by 8 in. wrot all round oak posts, with chamfered edges, carried down 4 ft. below roadway with 9 in. by 4 in. sole pieces, 4 in. by 4 in. struts and 8 in. by 4 in. chocks spiked on, bedded in cement concrete 2 ft. 6 in. square (or 3 ft.). Form spurs out of natural bent oak 7 in. by 5 in. frame into posts and carry 2 ft. below roadway and bed in concrete.

The gates can be as before described, or panelled gates can be used which would be specified in a similar way to a panelled door. (See item No. 218, stating if with raised panels, &c.)

231. Sliding Doors to garages, coach house, &c.—Describe the type of door required, i.e., panelled or ledged and braced, and then specify the fittings, of which many good makes are on the market. Doors hung from the top are best; those running on rollers and groove at bottom are somewhat heavy to handle. Provision should be made for protection of the track if outside, stop for doors when open, and provision for bolting and locking the doors when closed.

232. Garage and Coach House Doors.—To be 2 in. or 2½ in. deal framed and braced doors, stop chamfered on the inner side, with 9 in. (or 11 in.) bottom and lock rails and 4½ in. frieze and top rails and braces, rails splayed on the top. To have 4½ in. outer styles and 5 in. rebated and beaded meeting styles. To be grooved for and filled in with 1 in. grooved and tongued V-jointed boarding.

Hang each leaf with pair of Collinge's hinges . . . long, with socket plates screwed to door frames with coach-headed screws. The frames to be 5 in. by 4 in. beaded and rebated deal, or oak, with cast-iron shoes let into threshold, or iron dowels, and three wrot-iron dogs to each jamb.

Fit up with 2½ in. wrot-iron hinged swivel-bar, hasp, staple, eye-plate and padlock p.c. . . . one . . . in. and one . . . in. monkey-tail bolts and sockets and two pointed door checks with plates and countersunk screws.

Note.—If the door frame is in a thin wall, the door jambs should be the full thickness of the wall and secured to same with bolts 18 in. or longer, built into the brickwork.

State if doors and frame are to have segmental, semi-circular or elliptical heads.

The clear width of the doors for ordinary carriages and cars should not be less than 7 ft., but the doors should be wider if possible. The height of the car to be ascertained but 8 ft. should be ample with the hood up.

If fanlights are used over the doors for lighting purposes they can be either fixed or hung. These would be ordinary sashes and specified similar to windows or the top panel of door can be glazed.

233. Stable Doors.—Each door to be 2 in. (or 2½ in.) deal grooved and V-jointed framing in two heights, stop chamfered on the inner side. The lower half to have 9 in. bottom rail and 7 in. top rail twice splayed and the upper half 7 in. sunk and three times splayed bottom rail and top rails. Styles and braces to be 5½ in. To be grooved for and filled in with 1 in. V-jointed boarding. Hang each half with pair of wrot-iron strap hinges 2 ft. 6 in. long fixed with ½ in. bolts to 5 in. by 4 in. deal (or oak) rebated and beaded frame, with iron dowels and three wrought-iron dogs to each jamb. Fit up with four (or five) 6 in. brass barrel bolts, one brass flush ring handle, and two brass ball catches (or cabin hook and eye).

Notes.—Stable doors are made in two leaves, with or without fanlight over. Iron fasteners corrode and should not be used. Doorways should be not less than 3 ft. 6 in. in the clear, up to 4 ft. if possible, and about 7 ft. 9 in. to 8 ft. headroom. Two bolts are provided to each leaf for fastening and a fifth bolt can be on the meeting rails of both doors, and when shot allows the two doors to be opened as one.

If the doors are to open inwards, the meeting rails of the two halves will have to be arranged to keep water out. One method is to groove and fix a water bar in the top rail of the lower half splayed on the outside and the bottom rail of the top half, to be rebated and throated on the underside of the rebate.

234. Loft Door.—These doors are generally framed and braced and similar to those described for garage (Item 232). They should be not less than 3 ft. 6 in. wide, hung folding on butts or strap hinges to open inwards, and in addition to the usual bolts and fastenings, two 12 in. wrot-iron handles should be screwed to the door frames. Fanlight can be provided or the upper panel of door prepared for glass. State if head is square or circular, &c. A block and fall attached to a projecting beam over the door or a small wall crane can be provided for hoisting corn, &c.

235. Loop Hole Frame.—This is a door frame and flap provided on the upper floors of a warehouse or factory to enable goods to be hauled up and taken in from the street or yard. The door and frame could be similar to the loft door and the flap which is attached to a hardwood cill is formed of hardwood planks bound with wrot-iron straps fixed to the cill and kept in a horizontal position with a chain on either side. Described as follows:—

Put 12 in. by 5 in. weather oak cill. Form flap with .... ft. projection with 2½ in. oak grooved and tongued with galvanised iron tongues and hung on a pair of 3 in. by ¼ in. (or ⅜ in.) wrot-iron strap hinges with knuckle joints. Each hinge to be bolted to the flap with ½ in. bolt, one to each board, and to the cill with two ½ in. bolts and coach screw. The outer end of hinges to have forged eye and fitted with chain fixed to eye and plate bolted through door post. Provide two 12 in. wrot-iron handles and two wrot-iron hooks for chain when flap is up.

Note.—The flap can be framed and filled in with 2½ in. boarding if desired.

The door frame should be well secured to wall and the chains should be equal to the strain of the load to be carried. The crane can be described here in the "Smith."

236. Cellar Flaps and Trap Door in Floor.—Doors to be 2 in. deal, or hardwood, grooved and tongued boards, with splayed meeting, rails on 4½ in. by 2 in. ledges, and hung on pair of 18 in. wrot-iron strap hinges to 6 in. by 3 in. oak curb, rebated and notched and fitted with flush rings for opening and two iron barrel bolts on the under side.

The trap door in floor to be similar, but hung to mitred floor border and finished with deal linings grooved for plaster.

A movable T-iron support should be provided in the centre, and ordinary butts can be used in place of the strap hinges.

Movable guard rails, &c., should be provided to the cellar flaps, and also to the floor trap.

236a. Trap Door to Roof.—To be 1¼ in. bead butt, two panels, with 1½ in. staff beaded and rebated linings to be 2 ft. square, and to have two 6 in. neck bolts.

237. Revolving Doors.—These are made by specialists, and a provisional sum should be provided for same. They are mostly made in hardwood with four leaves revolving in one direction, and can be folded back if required. Ordinary swing doors can be provided on either side of the revolving door. The door should be easy in action, rigid, and draught-proof. The diameter is usually about 7 ft.

Stairs should be easy going and entail no greater exertion in ascending same than required in walking upon the level. The width of the tread plus twice the rise should equal 23, thus a staircase with a 9 in. tread would have a 7 in. rise, and one with an 11 in. tread would have a 6 in. rise. Taking a 9 in. tread and 7 in. rise as a basis each additional inch in the width of the tread reduces the rise by ½ in. The width of a staircase should not be less than 3 ft. and winders should be avoided, but if this is not possible they should be placed at the foot of the stairs in order to minimise the danger of falling. A flight should consist of not more than fifteen steps without a break or turning. Single steps are dangerous and should be avoided. Headroom between the edge of the nosing and the soffet above should (measured vertically) be no less than 6 ft. 6 in. The handrail to staircase should be about 2 ft. 6 in. above nosing and 3 ft. on landing.

Rough fir carriages spaced about 18 in. apart prevents springing in the steps and enables a thinner material to be used.

The minimum thickness of a riser should be ¾ in. and 1 in. for the tread, and the maximum 1¼ in. for the riser and 1½ in. for the tread. In special cases these thicknesses can be increased—such as a wood fire-resisting staircase under the London Building Act, which calls for a staircase in hardwood with a minimum thickness of 2 in. finished.

The most common form of staircase is the single flight with winders at the top now so fashionable in all housing schemes. Next comes the dog-legged staircase with or without a half or quarter space landing. Then comes the well staircase used in all good-class work, with two or three flights in the single staircase, or three or five flights in the double staircase.

Circular staircases as generally used in confined spaces, but are not chiefly made of iron. Staircases with semi-circular turns are now seldom used.

The following would be the specification for a staircase in a housing scheme:—

238. Staircase.—Construct the staircase with 1 in. deal grooved and rounded treads and ¾ in. risers, glued, blocked and housed to 9 in. by 1¼ in. wall string, and 10 in. by 1¼ in. outer string, grooved for plaster. Bottom step to have bullnosed end and blocked and veneered risers or solid ends where shown. Newels to be 3 in. by 3 in. deal with rounded tops and bottoms. Handrail 3 in. by 2 in. oak rounded on top, grooved for balustrade, and once oiled. Wall handrail to be out of 3 in. by 2 in. secured to hardwood plugs or brackets, as detail. Balusters 1 in. square deal, cut and nailed to capping to string and handrail. Put ¾ in. beaded aprons and 1 in. rounded nosing to well holes.

237. Servants' Staircase (dog-legged).—To have 1¼ in. deal grooved and rounded or moulded treads, 1 in. risers, glued, blocked and housed to 1½ in. beaded or moulded wall and outer strings, grooved for plaster, housed to newels and outer string, finished with twice-beaded capping. Winders to be cross-tongued. To be carried on 7 in. by 3 in. rough fir carriage framed to trimmers (one to each flight). Handrail to be 3 in. by 2½ in. moulded pitch pine, housed to newels or bracketed to walls with japanned iron brackets, p.c. . . . each, and with wall patera where abutting. To have all necessary screws and housed into 4 in. by 4 in. turned pitch pine newels, the latter notched and grooved for strings and handrails, &c.

To have 1¼ in. square deal balusters where required, housed to strings and handrails.

THE BUILDING TRADES EXHIBITION

A PRELIMINARY SURVEY.

Under the more settled conditions now obtaining, building exhibitions held at intervals of two years must be very similar, so far as the majority of the stands are concerned, and it is unlikely that we shall see any startling innovations at the Building and Allied Trades Exhibition, to be opened at Olympia on Wednesday next. There will be a few new things shown for the first time, but the majority of the stands will display improvements in already familiar methods and materials, and on that account will be well worth visiting by all interested in better and cheaper building.

It is in this connection that this year's exhibition will differ from those of six or seven years ago. The extreme difficulties under which building was then carried on resulted in much attention being concentrated on the problem of coping with an unprecedented demand for all kinds of building, and especially on improved types of small houses, in face of an insufficiency of labour and a shortage of the materials that had been obtainable in plenty in the past. Attention was given to the subject from within and without the industry, and many of the ideas then put forward were to be seen in tangible form at the Building Exhibitions at the time. Amongst a good deal that was valuable or suggestive, we saw optimistic people advocating the most complicated systems as ready means of providing houses in bulk; we saw the forerunner of the steel house in the demonstration houses built of a timber framing with asbestos-cement sheeting to form a cavity wall; we saw strange materials put forward as substitutes for brick Some of these ideas never got past the exhibition stage; others were experimented with for a short time and have not been heard of since; still others have survived the test of time and proved of great service to the building industry and the nation in helping to lower the cost of building and in some cases allowing building works to proceed where otherwise they would not have been possible owing to the lack of skilled labour or more usual materials, or both.

Some of these successful methods will be on view next week, including a selection from the alternative methods of house building on which 24,000 houses were built last year. In addition, there will be a new material which has not been shown before at the Building Exhibition, namely, sawdust concrete. Although this material is too new to have been used to any great extent in this country, there is no doubt that it has a future for many purposes. A few years ago the idea of using sawdust as an aggregate would have been considered fantastic, but practical experience have proved that it is quite a sound proposition. The two chief difficulties one sees in the use of such a material are the danger from fire and the tendency to crack owing to the fact that sawdust will expand when wetted, as it must be to allow the cement to function, and contract when the moisture dries out. Both these difficulties have been overcome by the discovery of an English engineer of a method of chemically treating sawdust so that it becomes fire-resisting and does not expand when wetted, with the result that a material is produced with ample strength for many building purposes.

Among the more usual materials there will be on view some excellent examples of bricks, slates, marble, wood, &c., from which the visitor will realise that, in spite of the extent to which alternative materials are being used, the traditional materials are still obtainable, and that their manufacturers are supplying really first-class goods. Amongst such stands as these, there is always much that is suggestive to the architect.

The influence of the architect in the design of small houses has naturally resulted in a demand for fittings of a far better quality than was often considered good enough for this class of work in the past, and the manufacturers generally have responded by producing standardised fittings of good design in which the taste of the architect may be seen. This is particularly noticeable in some of the doors, mouldings, fireplaces, gas fires, &c., which are now turned out by many firms on mass production lines, but with excellent taste. In recent years we have become accustomed to see a wide selection of such goods on view, and this year's Exhibition will be no exception, for manufacturers are more and more realising that there is an improved public taste which can be satisfied by the production of fittings with some æsthetic quality which cost no more than those which were accepted in the past.

Those concerned with labour saving in the home (and who is not ?) will find much of interest. Central heating systems, casement windows which may be cleaned from inside, porcelain taps, geysers, &c., the stands of gas and electrical appliance makers, are certain to be full of ideas and suggestions which may be adopted by the visitor.

The rapidity usually called for in modern construction is reflected in the large number of stands which will exhibit machinery and builders' plant, ranging from the woodworking machine which will perform practically every operation called for in an ordinary building to huge distributing plant. Woodworking machines capable of carrying out a variety of different operations have been brought to a high degree of perfection, and will be seen in operation on several stands. Mixers will be seen in many patterns, mostly of the "batch" type, with different features of special use for particular purposes. There will be on view the usual type, with power-loader and side discharge; drums which discharge vertically by the separation of the two halves of the drum; trough-shape mixers in which the materials are turned over by revolving forks, chains, or spades, or by a combination of chains and spades. The builder who realises the importance of correctly gauging the quantity of mixing water will be particularly interested in the mixers fitted with an automatic water feed, by which the water content of each batch can be controlled. A wide range of these machines will be on view, from the hand mixer of about 3 cu.-ft. batch capacity to the large power machines, and the smaller variety, which can now be had complete with power unit for between £100 and £150, are an attractive proposition even to the small builder. The handy power hoist, which has now become so popular, will also be seen in different patterns.

At the last Exhibition a demonstration of what can be achieved with modern materials was given by one of the cement firms, whose stand, in reinforced concrete, in which Ciment Fondu was used, was tested 24 hours after it was cast and found to be as strong as it would have been in a month if made with ordinary Portland cement. Since then aluminous cement has become increasingly popular for constructional work where speed is the first essential. Rapid-hardening Portland cement has come on the market since the last exhibition, and is now being made by several cement manufacturers. This type of cement attains in three days the strength of ordinary Portland cement in three weeks, and specimens, test data, and other information will be available on the stands of cement manufacturers.

Modern scaffolding, both wood and tubular steel varieties, travelling cradles, extension ladders, and decorators' plant are always well represented at these exhibitions. Scaffolding is such a large item in the cost of many works, especially interior decoration, that these stands deserve the particular attention of those interested in this branch of the building trade's activities, for improvements are always being made.

The same may be said of everything connected with building. Science and theory are put to practical application in improving or cheapening building, and it is at these exhibitions that the results are to be seen.

OPENING CEREMONY.

A number of prominent architects, builders, and others have accepted an invitation to be present at the opening ceremony, including Professor Beresford Pite, G. Topham Forrest, H. Austen Hall, Sir John Simpson, Maxwell Ayrton, Cyril A. Farey, Alderman Gunton, E. J. Partridge, Digby L. Solomon, J. Alan Slater, C. J. Dawson, Sir Cecil Harcourt Smith, Sir Lawrence Weaver, Nathaniel Lloyd, Basil Oliver, Sir Geo. Frampton, H. D. Searles-Wood, J. E. Sears, A. B. Falkner, Ellis Marsland, J. Alfred Gotch, J. Stockdale Harrison, Heaton Comyn, Major Harry Barnes A. J. Taylor, Edwin Gunn, Bernard Dicksee, Gilbert H. Jenkins, Edward Maufe, P. J. Westwood, William Grellier, C. Stanley Peach, J. Emberton, Oswald P. Milne, Herbert A. Welch, Percy B. Tubbs, W. H. Atkin-Berry, A. Trystan Edwards, Arnold Mitchell, W. R. Davidge, Brook Kitchin, Alfred Yeates, R. Elsey Smith, T. P. Bennett, Arthur Keen, F. R. Hiorns, J. Ernest Franck, A. J. Forsdike, H. P. Cart de Lafontaine, L. H. Bucknell, Alan Munby, W. Harding Thompson, J. C. S. Soutar, W. S. Dakers, R. Stephen Ayling, E. J. Sadgrove, G. L. Pepler, Lewis Solomon, Sir Brumwell Thomas, Max Clarke, W. Campbell Jones.

EXHIBITION ARRANGEMENTS.

Following is a list of fixtures in connection with the Exhibition:—

Wednesday, April 14.—Official Opening by the Lord Mayor of London, followed by a luncheon.

Thursday, April 15.—Clayworkers' Day.

Saturday, April 17.—Visit of Institution of Sanitary Engineers.

Tuesday, April 20.—Visit of Institution of Structural Engineers.

Wednesday, April 21.—Visit of Estate Clerks of Works. 3 *p.m.*—Lecture: "Substance, Form and Colour in Concrete," by Mr. Frederic Coleman; Chairman: Mr. Ralph Knott, F.R.I.B.A.

Thursday, April 22.—Visit of London Master Builders' Association.

Friday, April 23.—Visit of the London Society. Those members who wish to attend must apply for their free admission tickets to the Secretary, The London Society, 27, Abingdon-street, Westminster, S.W.1. The party will meet in the Grill Room, to the left of the Addison-road entrance at Olympia, at three o'clock, and after seeing the exhibits for themselves will assemble again at 4.30 p.m., at Mr. Montgomery's invitation, for tea.

Saturday, April 24.—"At Home" to members of the R.I.B.A. and A.A. Meetings of Association of Architects', Surveyors', and Technical Assistants.

Monday, April 26.—6.30 *p.m.*—Lecture: "Old London Bridge—Peter Morris and his Water Wheel," by Mr. Herbert A. Cox; Chairman: Sir William Bull, M.P.

Tuesday, April 27.—*A.A.S.T.A.*—Lectures: "Concrete Construction and Design," "Central Heating of Large Buildings"; Chairman: Mr. E. Fiander Etchells, A.M.Inst.C.E.

Building Exhibition £100 Essay Prize.

The promoters of this year's Building Exhibition are offering a prize of £100 and four valuable books dealing with architecture as consolation prizes, for the best essay on "My Impressions of the Building Exhibition, 1926." The following gentlemen will act as judges:—Messrs. E. Guy Dawber, P.R.I.B.A., H. S. Goodhart-Rendel, President A.A., and J. C. Squire, President Architecture Club, whose decision must be accepted as final. Essays, which must be typewritten, are not to exceed 2,000 words, and must be delivered to the office of the Building Exhibition, 43, Essex-street, Strand, W.C.2, on or before May 30. Intending applicants must apply for a form to Mr. H. G. Montgomery (Hon. A.R.I.B.A.), 43, Essex-street, Strand, W.C.2.

TRADITION IN THE USE OF BUILDING MATERIAL

By WILLIAM HARVEY.

Architecture and building construction have been slowly evolved under the pressure of many different and sometimes conflicting forces, and though a fashion in favour of some particular material may cut athwart and interrupt the steady current of precedent, and may leave its permanent record in some modification of tradition, the use of a few time-honoured materials is practically a foregone conclusion in all ages.

Some materials and methods of building are so obviously convenient that they persist in use almost continuously, or, if they are temporarily abandoned, they are returned to again. Facilities for the transport of materials are now doing a great deal to equalise building practice in countries that have formerly been difficult of access from one another, but the natural resources of each locality must continue to have a marked effect upon local tradition.

The excavation of dwellings from the solid rock faces of hills and cliffs hardly enters into the scheme of architecture in England, and no tradition exists here to guide the builder in those few exceptional cases where such methods of construction are made feasible by extraordinary circumstances. But England is only a portion, though the central portion, of a widely extended Empire, and the British architect practising in Palestine will find solid rock an ordinary medium for the production of modern, as it was for the production of ancient, works of architecture. Excavation by blasting is the usual method of forming the rainwater cisterns under the ground floors of most ordinary houses built in accordance with a time-honoured local tradition, and a great many buildings are still composed with some of their dwelling-rooms excavated or carved out of the rock and with other rooms added in masonry set in mortar. In some houses, convenience of planning insists that some parts of the wall and vault in a single chamber shall be of rock, while other parts are built up of added stone with the curves of the vault sweeping smoothly over the surfaces of carved rock and built masonry without distinction. In such cases a sound tradition in the use of vaulted and arched forms of high structural efficiency is depended upon to prevent unequal settlement and its resultant unsightly fractures.

Stone and mortar are traditional materials of construction in many parts of the world, and the ease with which they can be adapted to the production of curved surfaces as well as to buildings with rectangular plans and straight sides has been expressed in the construction of rounded and tapering towers and bastions as well as in the formation of arches, vaults and domes. We live in a period when masonry arches and vaults are looked upon with disfavour as dangerous and incomprehensible features productive of lateral thrusts, and therefore difficult for the architect to manage. Their design and the provision of adequate abutment for them certainly does make demands upon the thought and skill of the architect and inflicts a handicap upon free planning from the point of view of the convenient economic exploitation of a limited site. They are, none the less, traditional forms appropriate to materials rich in compressive strength and which will be liable to return to favour again and again in course of time, where dignity and permanence of construction take precedence of commercial considerations.

Stone work in architecture really has a dual aspect, and two traditions exist to guide the mason in the disposition of small stones in vaults and of large stones in flat lintols or architraves. The rock-cut work already mentioned is subject to both these traditions, large chambers in soft rock being appropriately made in the form of beehive domes, while small chambers in hard rock may be given flat ceilings. Rock cutting undoubtedly permits of the imitation by the sculptor of features derived from forms of architecture which have been developed by the use of other materials, and the rock-cut city of Petra abounds in sculptured representations of temple fronts complete with columns, architraves and pediments. Many other examples of rock cutting attest the power of fashion to dictate arbitrary forms which are not necessarily those best suited to express the structural possibilities of the material.

In one respect the traditional use of stone work, either in the form of large and regular, or of small and irregular blocks, has undergone an important change in recent years. In the time of the ancient Egyptians, and of the ancient Greeks, buildings composed of large blocks of stone or marble or granite were covered with opaque pigments of brilliant and vivid hues. A similar practice held good in connection with Romanesque and Gothic masoncraft, with the slight difference that these later styles of small stone masonry demanded on the whole a somewhat larger amount of plastering to prepare the irregular stone surfaces to receive the pigment. At the present time plaster and paint are still sometimes used for the finishing of the interior surfaces of stone walls, but a fashion has arisen which favours the exposure of the natural colour of the stone upon the exteriors and even in the interiors of permanent monumental buildings such as churches and cloisters. The finish of the stone by tooling or rubbing assumes importance under these conditions, yet modern masonry often leaves ample room for improvement in this respect. Rough tooling particularly is now too frequently of a mechanical order and does not even approach the artistic freedom of the work executed by the Normans 800 years ago. And Norman masonry, by the way, was intended to be covered up with plaster and pigment.

Whether large or small stones shall be used is to a great extent an economic question and one that is bound up with the different methods of quarrying and transport in vogue at different times and places. Strangely enough, the largest stones ever used in building construction have been placed in position under conditions when the team work of many men has been relied upon to provide the necessary motive power.

Limitation to transport on the backs of donkeys and camels implies a class of masonry in which blocks of perhaps 1–2 cubic feet come to be accepted as normal, and our civilised way of transporting stone and lifting stone by means of mechanical contrivances has implied the relegation of stonework to the position of a superficial veneer upon a structure of steel and brick. The employment of mortar for bedding stones profoundly affects the finished result and permits of the use of irregular shaped material that would have been rejected by builders who confined their operations to uncemented blocks. Granted a tenacious mortar, the stone tends to become an agent for giving temporary rigidity to the concrete-like mass during its setting.

Thin exterior facings have often been built up in such a way as to provide a margin or rim behind which a fluid mass of concrete could be contained as in a shallow tank. In various examples the proportion of stone facing to concrete core is found to vary from a preponderance of wrought masonry with an occasional small rough stone put in to fill a gap in the middle of the walls, to the other extreme where small rubble stones are bedded in thick joints of mortar connected with the internal concrete core of the wall.

The use of an external facing composed of comparatively regular blocks to uphold a fluid mass of internal concrete was systematically employed by the Romans, whose tile-like bricks of well-burnt clay were even more perfectly adapted than stone for this purpose. The joints are often as wide as, or even wider than, the thickness of the tile-like bricks, and the desire to make a concrete wall stand without shuttering is apparent in the technique of Roman brick buildings.

While brick remains a traditional material with us at the present time, we no longer use brick with the avowed purpose of making a wall in which the proportion of mortar far outweighs the brick, and our attempts to use the excellent mortars and concretes that can be made upon a basis of Portland cement generally demand the erection of a temporary false work or shuttering of timber. Even here traditional method may be recognised, for the Romans occasionally made use of timber shuttering when, for any reason, stone was not available and time did not permit of bricks being prepared. With us the brickwork tradition has gradually changed until comparatively thin joints and thick bricks have replaced the thick joint and thin brick of the Romans. The brick preponderates and is meant to preponderate in the wall, and though, like the Roman brick, it is still made of burnt clay, it is really a different building material since it no longer serves or can serve the same purposes.

An attempt to use our modern bricks as a facing for green concrete with mortar joints as wide as the brick is high would be doomed to failure. Even as it is, the bricklayer setting bricks of modern standard dimensions with ordinary ½ in. joints, is kept in a state of anxiety if a rainstorm wets the newly erected work. He well knows that the high and heavy brick is all too liable to slide and tilt on its bed of green mortar, especially if an excess of moisture is present to increase the plasticity of the mixture. The Renaissance, that brought in the fashion for thin joints in brickwork, really broke an ancient tradition, for though examples of fine-pointed Roman brickwork may exist, they must be regarded as highly exceptional. Many modern bricks, too, are far less thoroughly burnt than those which have come down to us from Roman times, and can only be properly used in places where they will be permanently protected from damp, and where they will not be called upon to bear heavy loads.

Climate certainly affects the traditional use of building materials, but other economic factors intervene to obscure the issue. In ancient Egypt structures formed of mud bricks or of wrought granite stood side by side, and as long as no rain fell and the inundation of the Nile kept clear of the foundations, both materials were sufficiently enduring. In this rainy climate of ours we now avoid the use of mud huts, even to house the poorest of the population, and the ill-burnt modern bricks which are of too poor a quality to be used as facings, are still more likely to endure than sun-dried mud.

The high cost of building operations during the past few years has revived the use of certain materials for which an English tradition once existed. Cob, pisé-de-terre, rammed chalk, or clay blocks have all been experimented with recently, though any saving in initial expenditure is often swallowed up in the extra cost of frequent repairs and the application of the additional impervious coat of rendering necessary to keep the wet and frost from the friable wall.

Wood as a material of construction is traditional in almost all countries where timber is plentiful, and wooden houses have lately been proposed as substitutes for houses built with walls of brick. Two principal traditional ways of building wooden walls have been evolved in different times and places. The log cabin, which has become so firmly associated with the settlers in North America, and which is really a Scandinavian method of building imported into that country, utilises whole tree trunks partially smoothed on two faces and piled up in horizontal layers one above another. This method has been practised in England in a few exceptional cases, but it certainly is not traditional here. A large number of straight tree trunks are needed for the erection of each house, and the cost would now be altogether prohibitive.

Walls built of a framing of wooden cills, posts, heads and braces tenoned and pinned together, are more usual, though danger from fire, insect infestation, and the dry-rot fungus sometimes made intending house owners chary

of their use even before the war had adversely affected the supply of sound building timber.

The sound tradition in wood building is to build with sound wood. The spaces between the several members composing the wooden frame of a building may be filled in with brickwork, wattle and daub, cob, clay or concrete, or the whole of the exposed faces of the wall may be covered with lath and plaster or with weather-boarding. The rafters in different examples have been protected by weather-boarding or with shingles, where the roof covering has been of wood, or the timber house may be given a roof of thatch, tiles, slate, or stone slabs, which last traditional materials for roof making are now returning into fashion after having been found too rough to meet with approval during the ultra-civilised Victorian period. Roughly-cleft stone slabs, used in the old manner with the smallest pieces reserved for use in the courses next the ridge and the largest laid at the eaves, make a beautiful roof

The pitch of such a roof is also a matter for tradition and should be fairly steep—47½ deg.—if the stone slabs are relied upon to keep out the driving rain and powdery snow. Large, unbroken roof surfaces are also traditional, and where valleys must be formed, the old method of sweeping the courses around the valley is to be preferred, since it preserves the continuity of the roof over all adjoining surfaces.

In those countries of southern Europe where timber is scarce and simple barrel vaults are used to bridge over the space from wall to wall, the traditional roof covering is the Roman or semi-circular channel tile. The crown of the vault is built up in light honeycomb work in brick or pumice concrete with frequent voids to fit the line of a low-pitched roof and the springing is filled in to complete the same line down to a projecting brick cornice at the eaves. The under course of roof tiles is then bedded in mortar on the slope, with the upper course, also bedded in mortar, over their upturned edges.

In the interior finishings of buildings, changes of fashion play a relatively important part, yet the unbroken tradition in the use of a material often persists for a very long period. Plaster and pigment have been mentioned, and they can boast a most respectable antiquity.

The use of joinery in the interiors of buildings has long been an established tradition, and modern ledged and braced doors recall a method of door construction that has been in use during several centuries. Framing and panelling also had its origin in remote times, though the fashions of different periods have affected the size of the panel and the nature and amount of ornament to be carved upon it.

CENTRAL HEATING IN HOUSING SCHEMES

Judging from official information supplied by local authorities and by the industrial companies who have undertaken central heating experiments in housing schemes, it appears (writes a correspondent) that central heating will show best financial results where it can be undertaken for a large number of houses and where the heat used is of the nature of a waste product. For example, in one of the Manchester schemes the heat is obtained from a refuse destructor furnace. In other cases the exhaust steam from a colliery is extensively used. In the abandoned Swanpool scheme at Lincoln the heat resulting from the condensation of steam in an electrical generating plant was to be used.

In England Manchester has given a lead. There are two schemes under the auspices of the Manchester Corporation:—

(*a*) Blackley Estate, arranged for 2,000 houses, of which about 600 houses have been completed. The heat is obtained from coal-fired boilers.

(*b*) Gorton Scheme, arranged for 580 houses, of which 486 have been built. Boilers fired with heat from refuse destructor.

Neither the capital cost per house, nor the value of the saving in cost of the separate installations can be given from actual figures: during the time the work has been in hand costs have come down to about half of those ruling when the earlier houses and the first part of the heating plant were erected. An estimate based on present costs is, therefore, more useful than any actual records, even if available. For central hot-water supply the capital cost would probably be from £100 to £110 per house. The saving in the cost of the houses would depend on what house is taken for comparison. The saving has been put as high as £75 per house, but this would include the kitchen range, its setting and flues, and other works which are dependent on the adoption of gas for cooking or heating, and not solely on the adoption of central hot-water supply. If the saving is confined to that due to the hot-water supply it comprises the back boiler, cylinder tank and part of the circulating pipes, fixing, etc., which might be put at £35 or £40 on present prices. It is admittedly easier to dispense with the cooking range and use gas where there is a central hot-water supply; but thousands, probably hundreds of thousands, of houses use gas for cooking without central supply, so the saving cannot fairly be set against extra cost of central heating. Figures are available for the running cost at Blackley for 540 houses. It may be noted that the average amount of hot water used is 50 gallons per house per day—double the estimated quantity—which must be taken into account when comparing the cost. The tenant has the use of much more hot water.

The cost per day of fuel is ...	£4	9	6
,, ,, ,, labour is ...	1	3	2
Total per day ...	£5	12	8
The cost per house per week ...	0	1	5½
Add 5 per cent. on extra capital cost, say £65=65s. per week...	0	1	3
	£0	2	8½

To this sum must be added a sum, at present not known, for maintenance and depreciation of plant.

Swanpool Public Utility Society (near Lincoln).—This was a very carefully prepared scheme for 2,000 houses, the waste heat from electric light generation was to be used, and the estimates showed that a weekly charge of 5s. 6d. would pay for light, heat and hot water. The scheme was abandoned after a few only of the houses had been built, and the plant was removed. But the estimate of cost remains one of the most carefully made for such a combined scheme.

In the case of a certain Public Utility Society scheme in connection with a large works a central hot-water supply was installed by means of exhaust steam in 100 houses. When this was arranged the engines were working continuously. They now have trouble because of short time, and naturally find the keeping up of steam in their main boilers on week-ends and on off days, for the heating of the houses only, a rather expensive arrangement; they estimate it costs 20 tons of coal for a full week-end. The charge made per house for hot water is 2s. per week. It is impossible to judge whether 2s. per week would meet the cost if exhaust steam were generally available, and an economical boiler for the purpose were used when steam is not available.

In another case a separate hot water and heating boiler was provided for each cottage, the cost per house being £47. Some offset is claimed by way of saving in bedroom fires, etc. Gas is used for cooking, and gas fires are provided in the living and sitting rooms. The following services are covered by an inclusive cost of 6s. per week, paid by tenants as an extra rent:—

(*a*) Heating apparatus, including hot water supply and several radiators.

(*b*) Two gas fires.

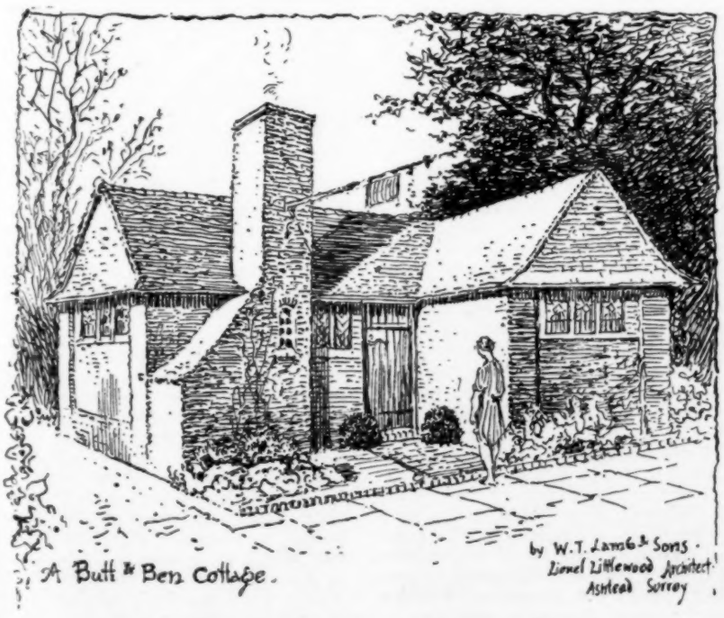
(*c*) One gas heated washing copper.

(*d*) Lighting of the house (by gas probably).

The above cost is based on coke at 1s. 10d. per cwt. and gas at 5s. per thousand cubic feet.

Flats.—The L.C.C. have not installed central hot-water supply for their blocks of flats, but it is understood that they contemplate testing this arrangement and that an estimate which has been recently made for this purpose showed that a charge of from 1s. 6d. per week for two-roomed flats to 2s. 6d. per week for five-roomed flats would on the average pay the cost of a regulated supply of 12 gallons per day per flat of hot water.

A central hot-water supply was installed in a block of flats, known as Hortensia Houses, Chelsea. In this case it was estimated that the extra capital cost, after crediting savings, came to £5 per flat in a block of 56 flats. Two tons of coke are consumed per week. The caretaker does the stoking, and this labour is not charged specially against the hot-water supply. The service is paid for in the rent and amounts to 1s. 6d. per week per flat.



A Stand at the Building Exhibition, Olympia.

PAINT AND PAINTING

Mr. Bernard Cayley, F.R.S.A., F.I.B.D., recently gave a lecture on this subject at the Regent-street Polytechnic School of Architecture. He said that he had found that where an architect or surveyor was cognisant of, or an expert in, say, building construction and its allied branches, the question of paint rarely came within his purview, and he was frequently content to leave the matter in the hands of the decorator, with results, on occasions, not too favourable. It was well to remember that a paint which was suitable for use on inside work might be wholly unfitted for exposure on the outside, the conditions in the two cases being entirely different. Paint which was exposed to the elements must withstand the action not only of wide variations in temperature, but of snow, rain, hail, frost and other conditions, all of which tend to destroy the paint films. Although there were several kinds of paint, when the word was used by itself, without qualification, it was generally understood to mean an oil paint, which was composed of four or five essential ingredients—namely, a pigment, a drying oil, turpentine, in most cases driers, and in a majority of cases a colouring material in addition. The pigment was usually purchased by the painter, ground in oil to a stiff paste, and by him was thinned and manipulated, according to the particular use to which the paint was to be put. Among the white pigments were white lead, zinc oxide, lithopone, timonox, and titanium white, the last two being comparatively new, but of great value when mixed with other pigments.

White lead was the favourite white pigment, and might be tinted to almost any colour required, although ultramarine and vermilion should not be used owing to the sulphur contents. White lead remained popular for three reasons:—It had excellent body or opacity; it was durable; and it was easy to apply. It had its disadvantages, inasmuch as it was poisonous, and that under certain circumstances it was likely to chalk. To counteract this latter defect make a mixture of zinc oxide and white lead in the proportions of from half and half, to two-thirds of white lead, to one-third of zinc. The poisonous qualities were not very serious if care was taken as far as cleanliness was concerned.

Zinc oxide was made from metal zinc by burning, and was an excellent and very white pigment of considerable durability. It was used in the preparation of white enamels, mixed with specially treated linseed oil and varnish, although sometimes the latter was omitted. Zinc by itself was liable to become brittle, but this was overcome by the addition of white lead. It could be used, however, as a finishing coat by using a pale, refined boiled linseed oil, cobalt driers and very little turpentine.

Another white pigment was lithopone; it was non-poisonous, had excellent body, and consisted approximately of two-thirds of barium sulphate (precipitated) and one-third of zinc sulphide. Sometimes it contained also a little zinc oxide. Lithopone was the principal base of nearly all the washable water paints, but it was not suitable for outside work. It was not discoloured by sulphuretted hydrogen and was non-poisonous.

Timonox, an antimony product, and titanium white were both excellent when mixed with other white pigments.

In addition to the pigments mentioned, there were very many others which might be used with perfect safety, the chief among them being the natural or earth colours, such as ochre, sienna, Indian red, Venetian red, iron oxide, etc., and coloured pigments such as chromes, various bright reds, etc. The earth colours were mostly cheap, particularly durable being free from any tendency to change colour, and, provided they were ground very finely, made excellent paints. There was a popular notion that no paint which was free from lead could possess any considerable durability, but this was quite erroneous.

The principal thinner was a drying oil, such as linseed oil, which was comparatively cheap and well adapted for paint purposes. It was added to the paste pigment in fair quantity for the priming coat, varying in proportion according to the surface. If such surface was very absorbent a large proportion of oil would be required. Storage in tanks was important in order that impurities might settle. Linseed oil was not in itself a good protector of any surface to which it might be applied: it was a combination between the oil and pigment which gave it its peculiar protective property.

The painter added raw linseed oil to his pigment until a mixture something like the consistency of cream had been produced. Now, if this were applied by means of an ordinary bristle brush, it would be found in most cases too thick. Brush marks would show, and it would not flow out properly, so in order to make the paint more liquid, turpentine was added. The latter did not stay in the paint but simply served the purpose of making the paint thinner; it quickly evaporated.

They now came, said the lecturer, to the consideration of driers, or materials which were added to paint to facilitate their drying, by which was meant becoming hard. It should here be mentioned that oil paint did not dry by evaporation, but by absorbing oxygen from the atmosphere. There were many different driers, those used for lead paints being litharge, lead acetate, and lead borate; and for zinc oxide, manganese sulphate, manganese borate, and the salts of cobalt. Some paints required the addition of no driers at all. Red lead, for example, which was in itself a good drier. White lead required very little. The blacks, vandyke brown, and the lakes usually required a good deal of driers. These driers were supplied in two principal forms, paste-or-patent driers, and in liquid form; the former consisted of some inert material to which the drying agent was added, and the latter formed but a small proportion of the bulk. It was an important fact that an excess of driers in paint caused a great deal of trouble; an excess made the surface dry, and a few days or weeks afterwards the whole paint film softened right through and would never become hard. It also had a marked effect upon the elasticity of a paint, reducing it to a much greater extent than was ordinarily supposed.

Another point about driers was that they assisted the paint in absorbing oxygen from the atmosphere; in a freshly painted room, therefore, it was necessary to provide for an adequate amount of fresh air to supply such oxygen.

Under all conditions the surface to which paint of any sort was to be applied should be first cleaned.

There were many different finishes available for painting plastered walls: first, ordinary distemper, which was an admixture of common chalk with a binding material, such as size or glue, and the necessary colour added. This, without colour, or very little colour, was used on ceilings. Ordinary, not washable, distemper was one of the cheapest finishes at the command of the decorator, but had the disadvantage of being quite unsuited for any work that was damp, because when it was wet it became much darker. Washable distempers could not really be washed, although the best qualities might be cleaned with a sponge if used very gently.

The glossless paints, made specially for application to walls, which were known as flat oil paints or flat wall finishes, were really washable, and could be scrubbed down within a few days of their application. This important characteristic was due to the fact that they contained a necessary constituent in their composition, Tung oil or Chinese oil, which had the peculiar property of resisting moisture.

The fourth material of the kind was flat enamel. Some very beautiful, soft effects might be reproduced by its use. There were many tints, shades and hues to fall back upon to obtain any decorative effect which might be required, while the hard washable surface provided was of immense hygienic value.

Passing from the walls to the woodwork, which might be painted, stained, flat enamelled, varnished, or otherwise treated, they reached, he continued, another important speciality: enamels. Enamels were made in 101 different colours, varying from pure white to black; they were made from pure zinc oxide, mixed with specially treated oil, and quite frequently special varnishes were added. Apart from their beauty they had the immense advantage of very great durability. They should not be applied over white lead, which had a tendency to cause a yellowing of the lighter varieties, but a special zinc undercoating should be used instead. The ingredients of these zinc undercoatings were bound together by varnish or other suitable material, so that the several coats could be applied, one over the other. Flat enamels might be used with excellent decorative effects in connection with glossy enamels, as for example, on a door, the stiles, rails and mouldings of which were glossy and the panels flat.

Varnishes might be roughly divided into three classes, oil, spirit and flat varnishes. The first of these was by far the most important, the other two comparatively insignificant. In applying varnish, the painter flowed it out, so as to get as much on the surface as he could without causing drips or runs. If the varnish was applied over paint, the coat immediately beneath it should be mixed so as to dry quite flat or free from gloss, and when this was done the adherence between the varnish and the flat paint was rendered perfect. When a dull surface was required, flat varnish which usually contained a proportion of wax could be applied, but the better way was to rub down a rubbing varnish as suggested and leave it dull. A very beautiful finish was produced by rubbing down two or three coats, including the last, and then getting a semi-gloss by rubbing with rotten stone and oil, which was often applied with the palm of the hand. Most finishers used raw linseed oil, but a better result was obtained by using a light lubricating oil.

Another material was known as scumble stains, scumble colours, and similar names. These were used in various ways in brush graining and produced some very pleasing effects. In brush graining no attempt was made to imitate any particular wood. The work was prepared in the ordinary manner, as though it were to be grained, and then a coat of the graining colour was given and a dry brush was drawn over the wet surface, removing portions of the paint in hairlike lines and exposing the ground underneath. The effect of mahogany, rosewood, oak and other woods could be obtained in this way without any attempt at imitation, but plenty of other effects could also be obtained by the exercise of a little ingenuity.

A good effect was obtained by applying a coat of paint over a ground of a different colour, and well stippling the top coat, in order to remove some of the paint in small spots or dots, thus exposing the colour of the undercoat.

Many architects objected to the use of flat paints on the walls, because they gave too solid and unbroken a surface. If it were desired to obtain broken colour or broken effect in flat oil paint it was easy and gave a more pleasant appearance. If the main colour being used was cream, and there was to be introduced a darker cream or buff, a cream to which had been added a little green, and another to which had been added a little red, they should be applied in round patches, side by side, at distances of, say, 18 in. The colours would then be blended and softened off in order to produce a mottled effect of varying colours, without any sharply defined lines.

THE CENTRAL ELECTRICITY SCHEME

By J. H. BARNS, F.I.O.B.

The Government's proposals for a central electricity scheme are very interesting from the builder's point of view, as it is often a great advantage to him if he can rely upon cheap electric current for power and light. At present there are very many municipal authorities and joint-stock companies supplying current for various purposes, and it is a matter to be considered what differences (if any) may be brought about by instituting a central authority. So far as the builder is concerned he is anxious to obtain facilities for a temporary supply for electric power and lighting for building and the general works upon which he may be engaged. The question of cost of electric light and power is usually at the risk of the builder, and he is therefore desirous of obtaining a supply as easily and cheaply as possible.

It is not a simple matter in these days to obtain a temporary electric supply, or a permanent one for that matter, as the companies have usually a monopoly and appear to spend a good deal of time considering the matter after the contract documents have been lodged with them. The electricity authority usually has one department to arrange to get the contract documents signed, and then the engineer has to be notified, also the mains department and the various other officials of the company, and a little delay with each totals a great waste of time before the current is connected.

At one time builders were canvassed by the electric supply companies to use current, and various facilities were offered. We could hardly expect a central authority for England to arrange the laying on of current to consumers more quickly than the similar companies now existing; the chances are the larger concern would find more opportunities for procrastination.

The builder is concerned in obtaining his power as cheaply as possible. It may be asked what does it matter to the builder what he pays for his electrical facilities as he will add them on to his estimate or account, and so in the long run the building owner pays; this is not always the case and the proposition is much more complicated than one would readily suppose.

One builder may be accustomed to carry out building work in the City of London, where the voltage for power is about 410 d.c., and he purchases electrical plant to suit; but if he is asked to estimate for a building just outside the boundary of the City of London on the other side of the street, say in the County of London electrical supply company's area, the voltage there supplied will be 530 volts d.c.

If he is fortunate enough to secure the job, either fresh electrical plant must be obtained or his existing machinery altered at his own expense, whereas a builder who usually works in the last-named area would have a plant to suit the voltage of the local supply company, and he would therefore be spared the expense which the first builder would be put to. Similar remarks apply to lighting as the electric lamps suitable for one district would not be suitable for another.

The following will give some idea of the variety of supply companies in London and the different voltages:—

	Voltage. Lighting.	Power.
City of London	210 ..	410
Charing Cross and West End	200 ..	400
County of London (Finsbury)	105 ..	530
Do. do. (Bermondsey)	210 ..	410
Bermondsey, B. Council....	240 ..	480
Shoreditch, B.C., &c.	240 ..	480

What is urgently needed is some step to be taken to provide electrical supply at a standard charge for each district. Different localities may have special conditions which tend to raise the price of the current, but it is hardly fair for a consumer in one street to be charged half as much again as a consumer in the next street, who obtains his supply from another company, which is now the case. In districts like the City of London the costs to supply companies for laying in their mains and making good pavings would necessarily be greater per mile than in a suburban area, but these do not wholly account for the great difference of rates in adjoining areas.

As it may be impossible to arrange to supply electric current at a uniform voltage in all districts facilities should be given to builders by the local supply companies for hiring motors at low rates for temporary purposes. This was frequently done in pre-war years, but as there has been a great increase in the cost of electrical apparatus it is now somewhat difficult to get the supply companies to provide electrical apparatus on hire for temporary purposes.

Gas companies usually go to a great amount of trouble to supply stoves and boilers and fittings on hire to encourage the consumption of gas, and electricity will hardly become popular until the supply companies adopt a similar course of procedure.

The hiring rates charged by firms who supply electric motors for temporary use are in some cases very high, and some firms seem to charge a rate which would pay for the machine if it were hired continuously for fifteen months, which seems to be far too much.

CONCRETE STUCCO RENDERING EXHIBITS

Mr. Frederic Coleman will show on The Adamite Company's stand at Olympia (Stand No. 95, in Row E), in the main portion of the hall an interesting display of large areas of actual concrete stucco renderings in white Portland cement concrete and in concrete coloured by the use of coloured sand as an aggregate. For this purpose five large frames 8 ft. sq. have been constructed and orthodox three-coat concrete stucco with five varying textural surfaces—each 7 ft. 6 in. by 7 ft. 6 in. in area—have been placed thereupon. Thus the visitor will be able to see five actual textural finishes of varying character and colour content produced by simple and inexpensive methods, exactly portraying what the exterior of a house wall or the wall exterior of any building will approximate in appearance if treated by rendering in "Atlas White" Portland cement stucco. The size of these areas is sufficient to give them each the actual textural appearance which the finished piece of work will assume when applied to a dwelling house or building of other character—which it is often impossible to obtain from a photographic impression. The accompanying illustrations give some idea (as much as photographs taken under a strong light can convey) of two of the five textural finishes on the slabs which will be exhibited on The Adamite Company's stand.

CASED STEEL COLUMNS AND BEAMS

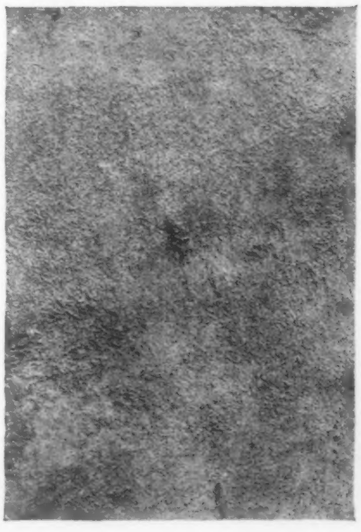
Increased Strength Due to Covering.

A correspondent in a recent issue raised the question as to the extra strength given to ordinary steel columns and joists by the concrete in which they are generally cased. This subject has not received a great deal of attention in this country owing to the fact that the existing building regulations do not, as a rule, permit the casing to be taken into account in the calculations for the design of steelwork. The subject has, however, a particular interest just now, as we believe the new regulations of the London County Council, to be issued shortly, will, with certain reservations, allow at least some part of this extra strength to be taken into consideration. In America it is common practice to take the concrete into account, with consequent saving in steelwork and the use of thinner members. A cover of, say, 2 in. would have to be ignored and reckoned as fireproofing, but there is no reason why the remainder of the cover should be ignored.

A large number of tests has been carried out abroad on this subject, and could be extensively quoted. Quite recently, however, Mr. J. Mitchell Moncrieff, M.Inst.C.E., and Mr. J. R. Sharman, M.Inst.C.E., carried out a series of tests in the same direction at the National Physical Laboratory at Teddington, on a machine presented to the laboratory by Messrs. Redpath, Brown & Co., Ltd., and arrived at practically the same conclusions as American and other experimenters. The tests were carried out on ordinary section steel, and a summary of the results is given below.

Columns.

The object of the column tests was to determine the increased strength of an ordinary plain steel column by the addition of an outer casing of concrete in addition to the amount required for fire-proofing purposes, but of a thickness often used to increase the size of the column for architectural reasons. To those not familiar with the subject the results are remarkable, showing that with a cover commonly used the increased strength approximates to 1,000 per cent.—an ordinary 4 in. by 3 in. steel column tested alone gave a breaking strength of 4 tons; when encased in concrete the breaking strength was no less than 55 tons. Eight columns were tested, all of ordinary section and with ordinary caps. Four were tested without cover and four with slightly varying thicknesses of concrete casing. A summary of the results is as follows:—



Textural Finishes of Concrete Stucco Renderings in White Portland Cement (Building Exhibition, Olympia).

Two 4 in. by 3 in. plain steel columns, weighing 9½ lb. per foot run, 193 in. in length, gave ultimate breaking strengths of 5.18 tons and 4 tons respectively. When cased with concrete up to 8.3 in. by 8 in. exactly similar test columns gave a strength of 48 tons. When cased in concrete to 8.1 in. by 8 in., the strength was 55.2 tons, the difference being the ordinary variations common to all tests of this kind.

A section of ordinary steel column 240 in. in length, measuring 5 in. by 4½ in. and weighing 18 lb. per foot run, gave a strength of 12.7 tons. When cased in concrete to a section of 8 in. by 7½ in., strengths of 40.44 tons and 46.1 tons were obtained.

The tests were carried out when the concrete was between 112 and 177 days old. The concrete consisted of one part ordinary Portland cement, two parts sand, and four parts Thames gravel screened to pass a ¾ in. mesh. The concrete was mixed and poured by ordinary labour and not rammed, in order to produce the same results as would be obtained on ordinary constructional work.

From the measurement of actual compression under the load it was found that in the case of the compound columns the weight was carried almost equally by the steel and the concrete, showing that the support given by the concrete enables the steel to carry more than five times the load which buckled the naked section. The ratio of the load carried by the steel and concrete will, of course, vary according to the thickness of the covering.

Floor Slabs.

The following tests were carried out to ascertain the increased strength imparted by the concrete filling to ordinary rolled steel joists used in floor slabs.

(1) A steel frame composed of four 4 in. by 1¾ in. rolled steel joists at 1 ft. 10 in. centres, connected at the ends and with two tie-bolts in its length, was tested on a span of 9 ft.

Without concrete filling the frame carried a maximum distributed load of 7.5 tons. When filled with concrete flush with the bottom flange and 1½ in. above the top flange, the distributed load was increased to 10.5 tons, an increase of 40 per cent. When filled flush with the bottom flange and 3 in. above the top flange, a distributed load of 14.3 tons was carried, or an increase of 90 per cent.

(2) A steel frame composed of two 6 in. by 3 in. rolled steel joists, and frames of three and four similar joists with varying amounts of filling, were tested over a span of 14 ft. The frames were connected at the ends, and connected with three tie-bolts in the centre.

The steel frame without concrete carried a distributed load of two joists. A frame consisting of four joists filled flush with the bottom flange and 2 in. above the top flange carried a distributed load of 21.3 tons, or an increase of 38 per cent. A frame consisting of three joists filled flush with the bottom flange and 2 in above the top flange carried 16 tons distributed load, an increase of 38 per cent. A frame consisting of four joists filled flush with the bottom flange and 4 in. above the top flange carried a distributed load of 28.6 tons, an increase in strength of 85 per cent. A slab filled with concrete flush with the top and bottom flanges only showed practically no gain in strength compared with the plain joists.

In this series of tests the same proportions were used for the concrete, and the slabs made under the same practical conditions. It will be seen that no increase in strength is obtained by simply filling the joists flush. The extra strength is imparted by the concrete above the top flange, and these tests indicate that the increased strength is in proportion to the increase in concrete above the steel. Thus the frame made up of four joists and filled to 2 in. above the top flange carried an increased load of 38 per cent., while a similar frame filled to 4 in. above the top flange increased in strength by 85 per cent. Similarly, while a covering of 1½ in. in the case of the 4 in. by 1¾ in. joists gave an increase of 40 per cent., a covering of 3 in. gave an increase in load carrying capacity of 90 per cent.

A further important point is the reduced deflection in floor slabs filled with concrete to a level above the top flange of the joists. The 4 in. by 1¾ in. joists filled 1½ in. above the top flange showed a deflection of 47 per cent. lower than the unfilled frame, while with the filling extending to 3 in. above the top flange the deflection was reduced by 55 per cent. In the case of the 6 in. by 3 in. joists, a filling of 2 in. above the top flange reduced the deflection by 35 per cent., while an extra 2 in. of filling reduced the deflection by 56 per cent.

Country House, near Nieuport, Belgium.

Small Houses, Nieuport, Belgium.

Octagonal Columns.

The tests at the National Physical Laboratory, outlined above, were confined to ordinary joist sections, covered with concrete in the case of columns to a section of, roughly, 8 in. by 8 in. A series of experiments was carried out by Professor Warren on columns composed of four 3 in. by 3 in. by ¾ in. angles with 2½ in. by ¾ in. lattice bracing. Tests were made on this type of column, both plain and with a casing, the casing consisting of 1 part Portland cement, 2 parts sand, and 3½ parts coarse aggregate. Plain steel columns gave an ultimate strength of 363,000 lb.; when cased with concrete to form an octagonal column 12½ in. by 12½ in., the strength was 678,000 lbs.; when encased to form an octagonal column measuring 14 in. by 14 in., the strength was 765,000 lbs.

A Club House, near Nieuport, Belgium.

SAND-LIME BRICKS

We have received from Messrs. H. Campbell & Co., of 20, Harp-lane, E.C.3, a leaflet dealing with the sand-lime bricks manufactured by the Briqueteries et Tuileries Silico-Calcaires de Coxyde, Belgium. Strength is the most outstanding feature of this brick; it has a very great crushing resistance, we understand, and possesses the meritorious quality of becoming harder in proportion to the time it is exposed. It is uncracked by fire or rough handling; thus, as none have to be discarded owing to being chipped, these bricks are economical. It is claimed to be exceptionally porous and so eliminates all dampness. An article in the "Chronicle" of the Conservatoire of Arts and Crafts of Paris writes of the bricks as suitable for all classes of building work; these bricks have been used extensively in Belgium, and are reported as being entirely satisfactory. Any size and shape can be made to meet the wishes and design of architects. The illustrations on this page show some recent buildings in Belgium in which these sand-lime bricks have been used.

THE "BUILDER" CONSTRUCTIONAL PROBLEM COMPETITION

This Competition is limited to students in architecture and building classes or schools, assistants who have not passed the Final of the R.I.B.A., and others engaged in architecture or building, not over 25 years of age. A prize of £1 will be awarded each week.

Drawings to be on paper, tracing paper, or linen not exceeding 30 in. by 22 in. (Imperial size), and should be in ink, with bold lines and printing, as the drawings, if reproduced, are much reduced in size. The drawings can be sent folded in a large envelope or rolled. Competitors must put their name and address on each drawing. Those who wish to have their drawings, etc., returned must enclose a stamped and addressed adhesive label.

Answers, addressed to the Editor and marked "Problem 14," to be sent in not later than first post, April 12. The Editor's decision to be final.

AWARD FOR PROBLEM No. 11.

The winner this week is Mr. H. R. Hudson, who submits a practical and efficient design for a septic tank suitable for a country house. As will be seen from the illustration, the system consists of the septic tank in which the solids are broken up by bacteriological action. The inlet is placed below the water level in order not to disturb the scum in which the greater part of the bacteriological action takes place. Any grit falls into the pit to which access for removal can be obtained through the manhole over. The outlet, which is below the water level, prevents disturbance to the scum and the escape of foul air. The effluent from this outlet is distributed over open filter beds by means of actuating tanks attached to a rocking arm, which automatically fill one bed whilst the other is emptying and aerating. The system is quite good and the filter beds and working parts, being in the open, are readily accessible.

Mr. Nicholls submits a scheme with a rotary sprinkler, a suitable method where there is a constant flow of sewage to be treated. Messrs. W. M. Cockbain, F. Richardson, G. W. Salt, A. T. Stevens, B. F. Allen, and S. D. Bowman all submit schemes which are practically identical. The system commences with an inspection chamber (an expensive item) with intercepting trap complete. This manhole and trap is unnecessary; the inlet pipe two feet below the water with a stopper above proves as effective as an intercepting trap in preventing foul air passing into the drain. The system is then similar in action to that submitted by the winner with the exception that the filtering bed is covered over, thus keeping out to a large extent the light and air which is needed at this stage.

Messrs. S. C. Burchell, M. Cormie, John Forbes and others submit schemes with a septic tank without filtering beds, which are practically only glorified cesspools with an overflow. The remaining schemes submitted vary in detail. Mr. Winward, for instance, dispenses with the superfluous inspection chamber noted above, and shows a long and narrow filter bed, the whole system being enclosed on top with concrete slabs. Generally the drawings are clear and well executed, and the competitors exhibit knowledge of the subject even if half-a-dozen or more have obtained it from one source. Those who have not had practical experience in the subject should inspect a system in operation. There will, no doubt, be some of the various systems on view at the forthcoming Building Exhibition at Olympia.

PROBLEM 14.

A two-story cottage, built of brickwork on the lower floor, is to have half-timber construction for the upper story. Both stories to be 8 ft. 6 in. in the clear.

Draw to scale of 2 ft. to an inch, part elevation and section of one end of the building, including a casement window in centre of each room.

The upper floor to project 2 ft. beyond the face of the wall of the room below, and to be partly in the roof.

Draw detail sections of the casements and frames, and detail of the half-timber construction, to a scale of 1½ in. to a foot.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—Ed.

Light Roof Trusses.

[Reply to "A. S. T.," March 26.]

Sir,—Very strong and light wooden trusses for spans up to 40 ft. may be built up on the laminated principle from scantlings, say, from 4 in. by 2 in. up to 7 in. by 2 in., by dividing the span into sections of 5 ft., each supported by a queen post member and braced up from the foot of the adjacent post, the lighter members being towards the bearings. The tensional members may be gripped between pairs of horizontal or compressional members and each group bolted through together. Many of the roofs for aeroplane hangars during the war were constructed in this fashion.

Builtup.

Brick Bond.

[Reply to "Student," March 26.]

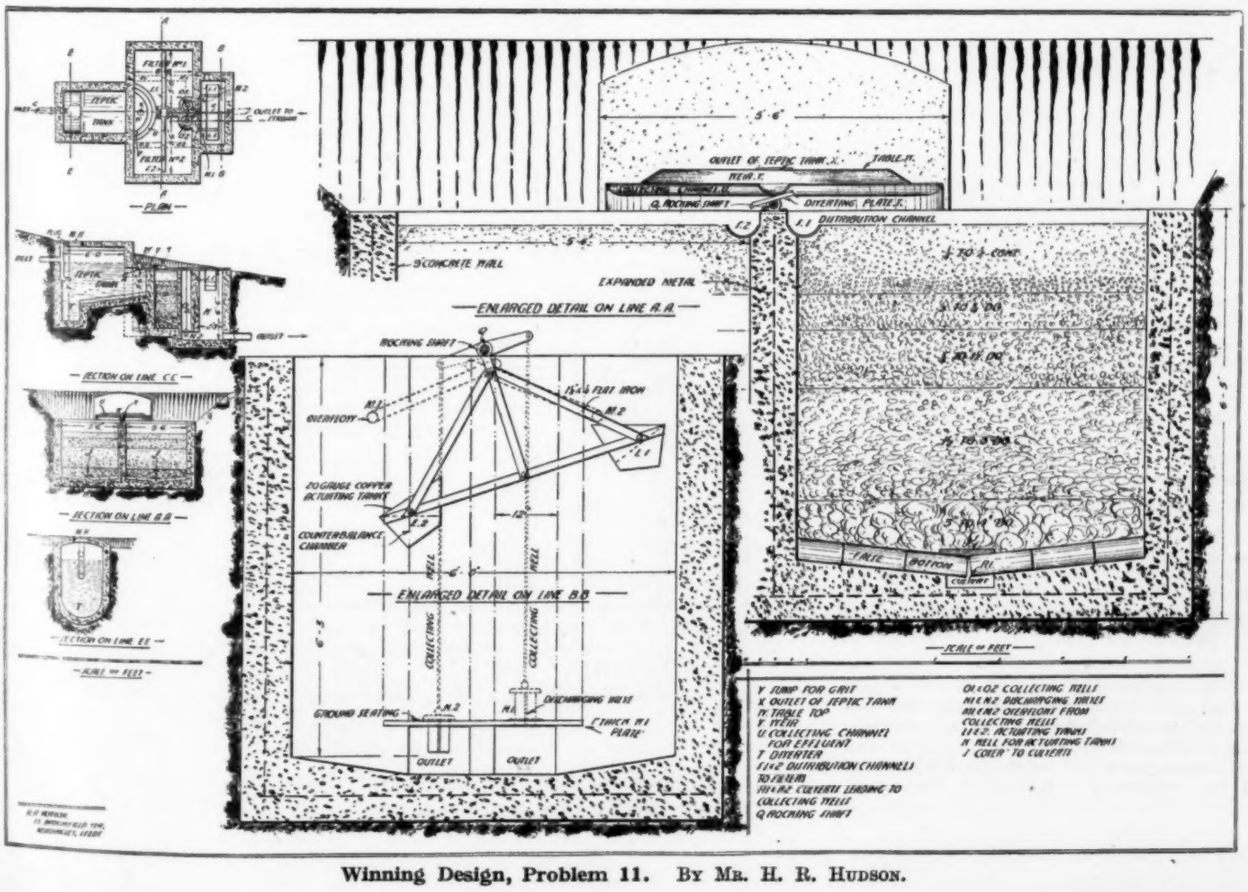
Sir,—English and Dutch bonds are very nearly identical, consisting of alternating courses of headers and stretchers. In the latter, however, an additional header is introduced into the stretcher course next the closer, which gives a diagonal line of incidence to the perpends that does not occur in English bond. The appearance of Dutch bond is, therefore, more pleasing than English, though its strength is slightly impaired, but this is really negligible.

Bricks.

Smoky Chimney.

[Reply to Mr. A. H. G. Berry, March 26.]

Sir,—I have always found that if a fireplace is arranged so that its flue has a quick "kink" immediately over the opening, and a small flat shelf provided to the lower part of the "kink" there is no trouble from down draught provided the obvious rules of chimney construction are followed, viz., good parging, easy and gradual bends, and the cap raised above adjoining buildings. The flat shelf has the effect of intercepting any down draught



Winning Design, Problem 11. By Mr. H. R. Hudson.

and converting it into a miniature whirlpool, which tends to restore the updraught. A revolving cowl would be an additional safeguard.

PRACTICE.

Cost of Painting Job.

[Reply to "Renrut" and "Reasonable," March 26.]

SIR,—I seem to have got into serious trouble with your correspondents as a result of my recent reply to "F. W. H." I should be glad to be given figures to show how the high percentage estimated to represent insurance, etc., items are arrived at, as I am quite unable to account for the figures given by your correspondents. As to the relation between labour and materials on such work I can only advise that with a good staff, good modern materials and methods, the labour proportion should be no higher than in any other building work, with a consequent reduction in the percentage charge of the above items. As to establishment charges, I can only say, after experience in running a large building department, that I should be ashamed of its efficiency if it touched anywhere near 5 per cent. on the turnover, and should consider it a sign that the units of the organisation were not functioning properly, or that the personnel was over-staffed. Another frequent and foolish practice among builders is to cling to premises in an expensive and highly-rated neighbourhood when their needs would be equally served elsewhere. Antiquated and inefficient shop plant is also another leakage.

MODERATE.

Brick Hearths.

[Reply to "Q.," March 26.]

SIR,—Provided that the bricks are close-grained and not too vitrified in the heart there is no reason why they should not be rubbed down to a new face for the purposes of cleaning. Personally I always think this type of hearth very unsuitable for its purpose and a quite immoral use of materials for a doubtfully artistic effect.

SERVICE.

SIR,—I put in a great many Dutch fireplaces on a job some time back and experienced the same difficulty as your correspondent. To clean, I tried rubbing with a brick of the same hue and spirits of salt, but neither was any good. Then I had some washable distemper made the same colour, and touched the hearths up from time to time, and that answered very well. One might try the old colour used for pointing, viz., red ochre and copperas.

G. W. H.

Drawings and Estimates.

[Reply to "St. Winefride," March 26.]

SIR,—For a principal's time anything from 5s. per hour up to a basis of £3 3s. per day of seven hours, would be a fair charge according to the standing of the firm. For skilled assistant's time 4s. to 5s. per hour, and for juniors 3s. Estimates are generally prepared on a speculative basis for contractors and based on a percentage. Otherwise the above time rates might apply. There is, of course, a definite scale of charges for abandoned work included in the R.I.B.A. scale of charges, which members are bound to follow.

FAIR.

SIR,—Querist would do well to obtain the schedule sanctioned by the Royal Institute of British Architects, price 9d., and adjust his charges accordingly.

G. W. H.

Building Work on Commission.

SIR,—We should be grateful if any of your readers could assist us in the matter of what is usual in carrying out building work on commission. We are now getting 12 per cent. on wages plus 5 per cent. on the result, and on the cost of materials.

BUILDERS.

Pricing Question.

SIR,—I prepared bills of quantities for certain works, and after obtaining the successful contractor's priced bill it was seen that one trade, which amounted to say, £55, was carried to the summary as £155. In the final adjustment at the completion of the job, as there were many variations, I omitted the whole of this trade, and added back, at the schedule rates and *pro rata*, the work as executed. Am I correct in omitting the £55, or the £155?

X. X.

"Boasted for Carver."

SIR,—Could one of your readers tell us what exactly is meant by, and how much work is included in, the term "boasted for carver?" We refer to the masonry trade, of course.

CURIOUS.

Corrugated Sheets for Roofing.

SIR,—Can you give me the name and address of the makers of corrugated sheets for roofing purposes, treated with *a special bitumen surface on both sides*, to preserve them?

W. H. MAXWELL.

Smoky Chimney; Defective Roof.

Replies to these queries have been posted direct.

HOUSING NEEDS AND HOUSING DEEDS

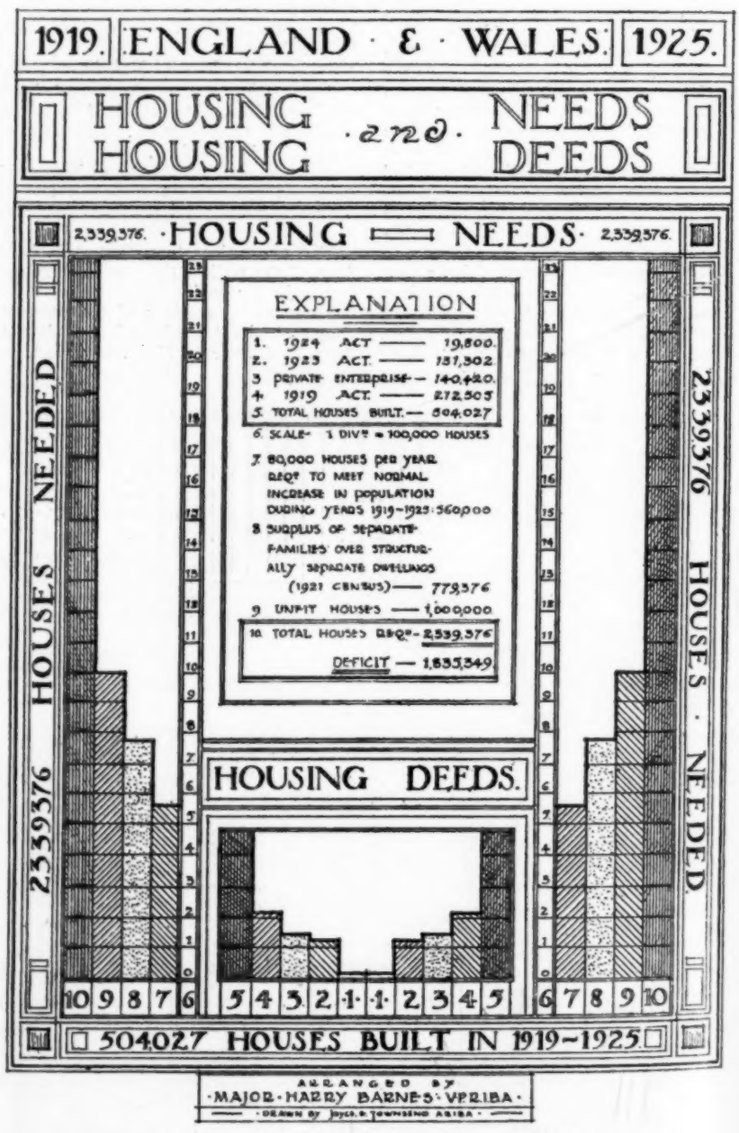
MAJOR HARRY BARNES writes to us as follows:—The accompanying chart has been designed to make clear the true position in regard to housing. Disingenuous attempts are being made to inculcate a belief that the housing problem is approaching solution when that is far from being the case. Much has undoubtedly been done, and great praise is due to everybody, from the Minister of Health downwards, who has had any part in what has been done, but there is much more to do.

The chart shows that to provide houses sufficient to meet: (*a*) The shortage arising from the war; (*b*) the number required to provide a dwelling for each separate family; (*c*) and to replace the unfit and insanitary houses, it would have been necessary, during the decade 1919–25, to have built 2,339,376 houses, while in fact 504,027 only were built.

The figure of houses needed is based on the estimates of the National Housing Reform Council and the Census Returns 1921, and the figures of houses built are those supplied by the Ministry of Health to the *Garden Cities and Town-Planning Journal*. It will be seen that the number of houses built falls short by over 55,000 of the number required to meet the normal increase in population during the years 1919–25, and do not provide a single house to meet the needs of the separate family, as revealed by the Census Returns of 1921, or to replace the unfit and insanitary houses now existing.

It must be clear that, so far from housing being a problem of the past, it is almost more than ever one for the future, and that there must be no slackening in the effort to solve it.

In the chart columns 1 to 5 give the figures of houses built, and columns 7 to 10 of houses needed.


1919. ENGLAND & WALES. 1925.
HOUSING NEEDS
HOUSING AND DEEDS
2,339,376. HOUSING NEEDS 2,339,376.
EXPLANATION
1. 1924 ACT — 19,800.
2. 1923 ACT — 137,302
3 PRIVATE ENTERPRISE — 140,420.
4 1919 ACT — 212,505
5 TOTAL HOUSES BUILT. — 504,027
6. SCALE: 1 DIV? = 100,000 HOUSES
7 80,000 HOUSES PER YEAR REQ? TO MEET NORMAL INCREASE IN POPULATION DURING YEARS 1919–1925: 560,000
8 SURPLUS OF SEPARATE FAMILIES OVER STRUCTURALLY SEPARATE DWELLINGS (1921 CENSUS) — 779,376
9 UNFIT HOUSES — 1,000,000
10. TOTAL HOUSES REQ? — 2,339,376
DEFICIT — 1,835,349
2339376 HOUSES NEEDED
2339376 HOUSES NEEDED
HOUSING DEEDS.
10 9 8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8 9 10
504027 HOUSES BUILT IN 1919–1925
ARRANGED BY
MAJOR HARRY BARNES V.P.R.I.B.A.
DRAWN BY JOYCE TOWNSEND A.R.I.B.A.

A Housing Chart. Prepared by MAJOR HARRY BARNES, V-P.R.I.B.A.

THE BUILDING TRADE

SOME OBSERVATIONS ON WORKMEN'S COMPENSATION.—XII

In our last article we considered "the review of weekly payments," and now we must deal with the

Termination of Weekly Payments.

Under the principal Act compensation was often paid voluntarily without an award, and it was not always necessary even to record a memorandum of agreement. In such cases the employer could stop the weekly payments at any time and then the workman usually applied for arbitration. Section 14 of the amending Act [Section 12, Act 1925] was apparently designed to meet such cases and to bring every case in some way within the cognisance of the Courts, but, as we shall show, the section has been expressed in such very obscure terms that litigation has already resulted, and it may be a question whether it will fulfil its apparent object.

The section is as follows: "An employer shall not be entitled otherwise than in pursuance of an agreement or arbitration to end or diminish a weekly payment under the principal Act except in the following cases: (*a*) where a workman in receipt of a weekly payment in respect of total incapacity has actually returned to work; (*b*) where the weekly earnings of a workman in receipt of a weekly payment in respect of partial incapacity have actually been increased; (*c*) where the medical practitioner who has examined the workman under paragraph (14) of the First Schedule to the principal Act [section 18, Act of 1925] has certified that the workman has wholly or partially recovered, or that the incapacity is no longer due in whole or in part to the accident and a copy of the certificate (which shall set out the grounds of the opinion of the medical practitioner) together with notice of the intention of the employer at the expiration of ten clear days from the date of the service of the notice to end the weekly payment or to diminish it by such amount as is stated in the notice has been served by the employer upon the workman. Provided that; (i) in the last-mentioned case if before the expiration of the said ten clear days the workman sends to the employer the report of a duly qualified practitioner (which report shall set out the grounds of his opinion) disagreeing with the certificate so served by the employer, the weekly payment shall not be ended or diminished, except in accordance with such report, or if and so far as the employer disputes such report, except in accordance with the certificate given by a medical referee in pursuance of paragraph (15) of the said schedule as amended by this Act [section 19, Act of 1925]; and (ii) where an application has been made in pursuance of the said paragraph (15) as so amended to refer the dispute to a medical referee, it shall be lawful for the employer pending the settlement of the dispute to pay into court (*a*) where the notice was a notice to end the weekly payment, the whole of each weekly payment becoming payable in the meantime; (*b*) where the notice was a notice to diminish the weekly payment so much of each weekly payment so payable as is in dispute; and the sums so paid into court shall, on the settlement of the dispute, be paid to the employer or the workman according to the effect of the certificate of the medical referee or if the effect of that certificate is disputed, as, in default of agreement, may be determined by the registrar or, on appeal, by the judge; (iii) nothing in this section shall be construed as authorising an employer to end or diminish a weekly payment in any case in which or to an extent to which, apart from this section, he would not be entitled to do so."

The main difficulty experienced in regard to this section has centred on paragraph (*c*) in the first part, but the Courts have found the whole section very difficult to interpret, and we can only endeavour to explain it in the light of two decisions given by the Court of Appeal.

In Pudney *v.* William France, Fenwick & Co. (1925, 1 K.B. 346; *The Builder*, December 26, 1924), the workman was injured on September 4, 1923, and the employers at once paid full compensation voluntarily without legal proceedings, and without recording a memorandum. On April 4, 1924, at the request of the employers, the man submitted himself to medical examination under paragraph (14) of the principal Act and the employer's doctor certified him as recovered and fit for work. The employers then acting under section 14 (*c*) of the amending Act sent this report to the workman, together with an intimation that they intended to stop the payments at the expiration of ten clear days. The workman took no steps to comply with the procedure provided in the proviso (i) to that section, but on May 23, 1924, commenced proceedings for arbitration. At the hearing the arbitrator held that the procedure provided by the section was the only procedure available by the workman, and he was precluded from taking proceedings to have the question of his compensation determined by arbitration.

Another appeal was heard at the same time, Smith *v.* Leach & Co., Ltd., in which the facts were very similar, but the arbitrator had taken an opposite view and had proceeded with the arbitration and made an award in the workman's favour. The Court of Appeal found these cases very difficult to decide, and all three members of the Court commented upon the intricacy of this legislation, and they especially found it hard to give a satisfactory interpretaton to the last paragraph in the section numbered (iii). The Court overruled the decision in the first of these cases and affirmed the decision in the second.

The Court held that the section applied to weekly payments made as in these cases voluntarily; in fact, Lord Justice Warrington held it could only apply to such payments, as in no other case could the weekly payments be ended or diminished under the principal Act, as where there was an award or a recorded agreement the payment could only be varied on a review. But it was also held that the procedure indicated in paragraph (*c*) of section 14 of the amending Act does not substitute the new procedure for arbitration so as to exclude this latter proceeding, and therefore, although the man had not availed himself of the new procedure, yet he could apply for arbitration.

Before further considering the judgments in these cases we will refer to another decision of the Court of Appeal in Davies *v.* Glyncorrwg Colliery Co. (1925, 2 K.B. 339). There the workman met with an injury on April 13, 1923. Liability was admitted and full compensation was paid voluntarily to October when light work was found for the man and the compensation was reduced. On August 13, 1924, the employers served a notice on the workman purporting to be made under section 14 (*c*) and in this case the workman availed himself of the proviso and served a counter report of his medical man on the employers. The employers did not apply for reference to a medical referee and took no further steps but stopped the payments. The workman at first applied to the registrar for reference to a medical referee, but was advised by the registrar that this course was only open to the employers and the workman then applied for arbitration. The arbitrator found that the workman was not entitled to compensation, that is to say, he accepted the view of the man's condition taken by the employers' medical man. The Court of Appeal in that case held that when the workman's counter medical certificate was received it was obligatory on the part of the employers to proceed under the section and to apply for a reference to a medical referee, and in the meantime to pay the weekly payments in dispute into court. As they had not done so they were held liable for the weekly payments down to the date of the arbitration. It is extremely difficult even now to say what is the effect of this section. In Pudney's case the Master of the Rolls is reported as having said: "The whole section is so obscure that I apprehend difficulties in any construction to be placed upon it." Lord Justice Warrington, in the same case, characterised the section as "badly drawn and very difficult to understand," whilst Lord Justice Scrutton is reported as having said: "The obscurity of this section increases my doubt whether Parliament understood what they were doing or whether I have understood what they meant, but at any rate I cannot get any assistance from the proviso"—meaning proviso (iii).

Just as we go to press a decision has been reported of some importance on the subject of "agreement" under this section, Feeney *v.* Firbeck Colliery, Limited (*Weekly Notes*, February 20, 1926).

In that case the applicant on April 19, 1924, had suffered injury to his back, and the respondents had paid him full compensation. On January 5, 1925, the applicant's own panel doctor gave him a certificate that he was able to resume his employment, and he presented this certificate at the colliery the following day when the cashier paid him a week's compensation, but informed him that would be the last payment. The applicant was illiterate, but, as the county court judge had found, was quite able to look after himself, and he signed the following receipt: "Received the sum of £1 10s. compensation calculated to January 3, 1925, as agreed under the Workmen's Compensation Acts. Final payment." And when the cashier told him that compensation would be stopped, observed "All right." The applicant never attempted to go back to work and made no further claim until August 7, 1925, when solicitors on his behalf put forward a claim but were informed that the weekly payment had been terminated by agreement on January 5. On the arbitration the County Court judge dismissed the claim, finding as a fact that the applicant was fit for work on and after January 5, and holding that the weekly payment had been ended by agreement under section 14. The Court of Appeal dismissed the workman's appeal, finding that there was an agreement within section 14; that if consideration was required to support it there was consideration in paying the last weekly payment without proof that disability had existed during the last week, and that an agreement of this kind need not be recorded under paragraph (9) of the second Schedule of the principal Act [23 Act, 1925] (Guest, Keen & Nettlefolds, Ltd., *v.* Williams, 1925, 18 B.W.C.C. 68), and to imply such a requirement in section 14 would be inconsistent with the limited object of that section.

In view of the difficulty of the subject we can only submit the following suggestions as to the effect of the section:

(1) The section includes payments made voluntarily to an injured workman by the employer if those payments are made in respect of a liability and not as mere charity.

(2) A weekly payment may still be terminated or diminished by agreement, or by arbitration, and without such agreement or arbitration in the two first cases set out in paragraphs (*a*) and (*b*) of section 14, that is, where the workman in receipt of weekly

payments in respect of total incapacity has actually returned to work or where the weekly earnings of a workman in receipt of weekly payments in respect of partial incapacity have actually been increased.

(3) As an alternative to agreement or arbitration the employer may resort to the procedure prescribed in paragraph (*c*), but it is here that difficulties arise.

If the employer resorts to this procedure and the workman under proviso (i) takes no steps under the section, Pudney *v.* William France, Fenwick (*ubi sup.*) shows that the workman is not debarred from applying for arbitration. If the employer resorts to this procedure and the workman under proviso (i) takes the counter step there provided, but the employer then takes no steps to bring the matter before a medical referee, here again the workman is entitled to go to arbitration according to Davies *v.* Glyncorrwg Colliery Co. (*ubi sup.*).

The position of the employer is not so clear. Lord Justice Warrington, in Pudney's case, said, "There is nothing in the section to compel either party to do that which would give the registrar or the judge jurisdiction," and Lord Justice Scrutton said, "nor can I find an express provision that if the employer in the case of conflicting certificates does not go to the medical referee he is deprived of recourse to agreement or arbitration." This latter pronouncement was not, however, necessary to the decision of that case as the workman had not served a counter certificate, and in Davies's case Lord Justice Bankes pointed out that this was only a dictum, and, speaking for himself, this particular point should be left for consideration in a case in which it arises.

We can only suggest that if the employer desires to diminish or terminate a weekly payment the following courses appear open to him. He can agree the matter, or he can apply for arbitration, or he can adopt the procedure provided by section 14 (*c*). If he takes this latter course and the workman takes no step, as in Pudney's case, probably he can still apply for arbitration, but if the workman takes his step then the employer is committed to the procedure he himself has invoked under section 14 (*c*).

All that can be said with certainty is that very little incentive is offered to employers to adopt the procedure provided in section 14 (*c*) and that it will rarely be resorted to since it has been held not binding upon the workman to follow it up.

Now that by section 11 of the amending Act it has been provided that an application for the examination of the workman by a medical referee can be made by either party under paragraph (15) of the First Schedule of the principal Act [section 19, Act of 1925] (see Article X), it appears, the employer doubtful of the workman's condition might apply for a reference under that paragraph before taking any steps to end or amend the compensation, under section 14, but the payment cannot be ended or diminished except under one of the methods explained above, unless in one of the excepted cases, and section 14 (*c*) offers the one advantage of being able to pay the wages in dispute into Court, thus affording a chance of recovering them.

London Housing.

The City of London Corporation has acquired for £30,000 the freehold sites in land in Shepherdess-walk, Turner-place and Wenlock-road, N., for housing schemes.

Staffordshire Education Building Scheme.

A comprehensive scheme of educational development has been submitted to the Staffordshire Education Committee in accordance with the requirements of the Board of Education, the cost of which is estimated at nearly £350,000, and includes new elementary and secondary schools, including a Bilston Girls' High School, £35,000; and a Wolverhampton Technical College, £37,300.

DILAPIDATIONS AND WASTE.—XIII

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ECCLESIASTICAL DILAPIDATIONS.—(I.)

Case Law.

Every person occupying a spiritual office, and receiving the emoluments thereof is under a duty to circumvent preventable dilapidation of the property he holds. A breach of such duty will bring upon that person censures from the ecclesiastical authorities, and in any case, he, or his estate, is liable to the new incumbent on the benefice becoming vacant for any dilapidations.

Upon death, the freehold of his glebe, or other ecclesiastical lands which he has held, is in abeyance, and although there is no law (as is the case with agricultural holdings) which compels the incumbent to cultivate the glebe lands in a proper and husbandlike manner so that his successor may receive them in that state, yet he is undoubtedly under the burden of repairing the hedges, fences, gates, &c., around and upon those lands, and if dilapidations are found at his death to have accrued thereto, his executors are liable in respect of them to his successor.

Wise *v.* Metcalfe (1829), 10 B. & C. 299, is the leading authority as to the liability for dilapidations in respect to ecclesiastical buildings, &c., and the principles on which they are to be determined. It was held in the case that the incumbent of a benefice is bound, not only to repair the buildings belonging to his edifice, but also to restore and rebuild them if necessary; because the revenues of the benefice are given as a provision, not only for the incumbent for the time being, but also as a suitable residence for a clergyman, and if by natural decay, which, notwithstanding continual repair, must at last happen, the buildings perish, these revenues form the only fund out of which the means of replacing them can arise. The obvious deduction from this ruling being that all incumbents should set aside a suitable proportion of the revenue entrusted to their use for repairs and reinstatement.

Restoration and rebuilding where necessary is to be according to the original form, without addition or modern improvement. The incumbent is not bound to supply or maintain anything in the nature of ornament, to which category painting (unless necessary to preserve exposed timbers from decay) and whitewashing and papering belong. It has further been held that any needless expense of luxury or ornament in which the present incumbent has indulged himself should not be transmitted to his successors. (See Martin *v.* Roe, 1857, 7 E. & B. 237.)

Bishops, rectors, parsons, vicars, and other ecclesiastical persons are considered to be *quasi* tenants for life of the lands; they hold only as such, and consequently are prohibited from destroying all things which are not included in the temporary profits of the land, because such destruction or waste would impoverish their successors.

In general, for an incumbent to cut wood or timber on the glebe, otherwise than for repair, or to cut down trees in a churchyard, except for the repair of the chancel of the church, is technically "waste." Bud wood may be cut down for any purpose, also underwood, if it is the custom of the country; but if the latter be grubbed up it is "waste." Also it is "waste" to open mines on the glebe, without the consent of the patron and ordinary, but those already opened may be worked by the incumbent, and stones for repairing may be dug.

The incumbent may also sell timber cut, or stones dug, from his glebe, if the money obtained therefrom is used in repairs to the benefice. But where an old barn was pulled down and taken away, and replaced by another one erected on a more convenient part of the glebe, it was not "waste." Nor does it appear to be "waste" to dig for gravel on the glebe (see Ross *v.* Adcock, 1868, L.R.C.P. 655). So, too, where buildings on the glebe have been erected so as to be capable of being removed (and are not fixed to the freehold, but resting on the ground), there is no liability for dilapidations in respect of them (see Huntly *v.* Russell, 1849, 13 Q.B. 572).

In Martin *v.* Roe (*supra*), hot-houses had been erected in the garden of the rectory-house, consisting of frames and glass-work bedded in mortar on a brick wall, and the executors of the deceased rector removed the frames and glass work, doing no damage beyond that done to the mortar in the removal. It was held that the removal within a reasonable time was justifiable, as such things were personal chattels, and passed as such to the executors, and that the deceased rector in his lifetime might have removed the frame and brickwork, or left the same out of repair, without rendering himself liable for dilapidations, and provided he had restored the garden to its former condition and occasioned no injury amounting to "waste." In fact he could have removed the whole building as well.

Statute Law.

The law relating to ecclesiastical dilapidations is now embodied in the Ecclesiastical Dilapidations Measure, 1923, which came into force on July 14, 1924, and repealed the whole of the Ecclesiastical Dilapidations Act, 1871, with the exception of Sections 25, 26, 27 and 28, which deal with the repairs to residences of archbishops, bishops, deans and canons, and also the Ecclesiastical Dilapidations Act, 1872, with the exception of Section 3, which deals with fees payable to secretaries, registrars and surveyors. The Measure is not applicable to Scotland or Ireland, or to such portions of Wales and Monmouthshire as are subject to the provisions of the Welsh Church Act, 1894.

In ecclesiastical law dilapidations include the pulling down or destroying in any manner of the houses or buildings constituting the property of a spiritual living, or suffering them to run into ruin or decay, or wasting or destroying the woods of the church, or committing or suffering any wilful waste in or upon the inheritance of the church. Included also, where it is a benefice, are all such houses of residence, glebe buildings, walls, fences and other buildings and things as the incumbent of the benefice is by law or custom bound to maintain in repair; and the drainage thereof and the supply of water thereto. (See Section 4 (2) of the Measure.) Under Section 52 (1) of the Measure the incumbent who was formerly under an obligation to repair or insure the chancel of the church is now freed from such obligation, and the chancel is to be repaired and insured in the same manner as the remainder of such church. Provision is further made that any other person who is liable for the repair of the chancel may compound such liability by a money payment, and the chancel then becomes reparable in the same manner as the remainder of the church, *i.e.*, by the churchwardens, who are the guardians of the church and are bound to exercise constant vigilance with regard to the state of the church and to execute such repairs as are needed thereto.

Under Section 12 of the Measure provision is made for the appointment by the Diocesan Dilapidations Board—a new body constituted under the Measure—of a surveyor or surveyors of ecclesiastical dilapidations for the diocese, who under Section 15 (1) and (2), together with his servants and workmen, are empowered, after due notice to the incumbent (if any), to enter the buildings at all reasonable hours during the daytime in order to inspect and examine them and also any works in progress under the Measure.

NEW BUILDINGS IN LONDON

Barnet.—It is proposed by the Board of Guardians to extend their infirmary and erect a new nurses' home for 60 nurses, at a cost of about £32,000. Messrs. A. Saxon, Snell & Phillips, architects, 9, Bentinck-street, Manchester-square, W.1.

Bethnal Green.—It is proposed to erect a new building in Old Ford-road, N., principally in reinforced concrete. Mr. H. J. Deane, M.I.C.E., consulting engineer, 36, Victoria-street, Westminster, S.W.1. Messrs. George Corderoy & Co., quantity surveyors, 21, Queen Anne's-gate, Westminster, S.W.1.

Brentford.—Funds are being raised for the building and equipment, at a cost of about £6,000, of a small cottage hospital for the district. Messrs. Dodge & Reid, architects, High-street, Brentford.

Chiswick Park.—The L.E.R. Co's station at Chiswick Park, W., is to be enlarged and reconstructed. Mr. Z. Knapp, director of construction, 55, Broadway, Westminster, S.W.1.

City.—Messrs. Truman, Hanbury, Buxton & Co., Ltd., are to carry out alterations to their Eastern Hotel, E., to the design of Mr. A. E. Sewell, L.R.I.B.A., architect, 91, Brick-lane, E.1. Mr. W. Gilbert, L.R.I.B.A., quantity surveyor, 24, Broad-street-avenue, E.C.2. Messrs. T. G. Waterman, builders, 34a, Three Colt-street, E.14.

City.—As a preliminary towards rebuilding and extension of premises, Messrs. Brown Bros., Ltd., manufacturers, Great Eastern-street, E.C., have agreed to purchase Nos. 28, 30, 32, and 34, Great Eastern-street, E.C., which secures to them the whole of the freehold of their warehouses in this street.

City.—The Lord Mayor lays to-day (Friday) the foundation stone of the large new police station at Snow Hill, E.C., which is to be built by the Corporation of London's Police Committee at a cost of about £100,000. Messrs. John Mowlem & Co., Ltd., builders, Ebury Bridge-road, Westminster, S.W. Surveyor's Department, Guildhall, E.C.2.

Cork-street.—Plans have been approved for the building of a block of residential flats in Cork-street, W.1. Mr. Gervase Bailey, F.R.I.B.A., King's-buildings, Smith-square, Westminster, S.W.1.

Dagenham.—British Ropes Ltd., rope manufacturers, 2, Cavendish-square, W.1, have acquired a site upon which it is proposed to erect a factory.

Eagle Wharf-road.—Sanction has been given to plans for the erection of premises upon a site at the corner of Eagle Wharf-road and Shepherdess-walk, E.C.1. Sir John W. Simpson, K.B.E., F.R.I.B.A., architect, 3, Verulam Buildings, Gray's Inn, W.C.

Fenchurch-street.—The site of Nos. 37–39, Fenchurch-street, E.C.3, is now being cleared by Messrs. B. Goodman, Ltd., Haggerston-road, E., preparatory to the building of a large block of offices and shops for the ground landlords, the City of London Real Property Co., Ltd., 159, Fenchurch-street, E.C. Messrs. Trollope & Colls, Ltd., builders, 5, Coleman-street, E.C.2. Messrs. J. Campbell Jones, Son & Smithers, 9, Dowgate-hill, Cannon-street, E.C.4.

Finchley.—New houses are being put up in large numbers in Courthouse-gardens, Church End, N.12, with four bedrooms, two reception rooms, &c., at prices from £1,075. Messrs. C. F. Day, Ltd., builders, High-road, North Finchley, N.12.

Finsbury.—The Temple Press, Ltd., printers, 7-15, Rosebery-avenue, E.C.1, have acquired the adjoining premises, No. 5, Rosebery-avenue, with a view to extensions.

Fulwell.—The wardens of the SS. Michael and George Church propose to build a new parish hall at a cost of about £4,000-£5,000. A site has already been secured.

Golders Green.—Housing developments are projected in connection with the Glebe Estate, and plans show semi-detached residences of good type with garages. Mr. A. P. Rey, builder.

Greenwich.—It is proposed to build a new pathological department and to extend several other departments at the Dreadnought Seamen's Hospital, S.E.10. Sir Edwin Cooper, F.R.I.B.A., architect, 4, Verulam-buildings, Gray's Inn, W.C.1.

Haggerston.—A fund of £10,000 is being raised by St. Augustine's Church, E.2., for the erection of a parish hall and other purposes. The Rev. H. A. Wilson, St. Augustine's Clergy House, Yorkton-street, Hackney-road, E.2.

Highgate.—The Furnishing Traders' Benevolent Association is proposing to raise £20,000 to be expended upon the building and equipment of a new wing at their Radlett House Home for Boys and Girls at Highgate, N.6.

Holborn.—The Royal Free Hospital in Gray's Inn-road, W.C., has decided upon plans for the building of a new ward block. Messrs. H. V. Ashley & Winton Newman, architects, 14, Gray's Inn-square, W.C.

Ilford.—Plans have been prepared for the building of a new church on a site in Broomhill-road, for the local Congregational Church. Messrs. George Baines & Son, F.R.I.B.A., 121, Victoria-street, Westminster, S.W.

Kensington.—It is proposed to build about 12 small modern town houses in this neighbourhood. Messrs. Densham & Lambert, surveyors, 23a, Savile-row, W.1.

Kensington.—A block of business premises is to be built in Church-street, W.8. Messrs. Row & Son, surveyors, 35a, Kensington High-street, W.8.

Kingston.—A block of corner premises is being reconstructed and equipped by the National Provincial Bank, Ltd., as new branch offices. Mr. F. C. R. Palmer, F.R.I.B.A., architect to the Bank.

Lambeth.—The governors of the General Lying-in Hospital in York-road, S.E.1, propose to build a new home for their nurses and staff.

Marylebone.—The governors of the Western Ophthalmic Hospital in Marylebone-road, N.W.1, are preparing a scheme for the financing of an obligatory rebuilding, which has to be carried out shortly at a cost of £40,000.

Marylebone.—With regard to the paragraph under this heading in our last issue relating to the erection of a large building near Harley-street, to be fitted up as a modern nursing home, we should have stated that Mr. Biddulph Pinchard, of 9, Staple Inn, Gray's Inn, W.C., is the architect for the work, Messrs. Pite, Son & Fairweather, of 12, Conduit-street, Westminster, S.W.1, being the consulting architects.

New Bond-street.—Messrs. The Dolcis Shoe Co., Ltd., 78, Oxford-street, W.1, have acquired the premises at the corner of New Bond-street, and Oxford-street, W.1, where new showrooms are to be fitted up. Messrs. Holttum & Green, Ltd., builders, Finsbury Works, Durham-road, N.7.

Oxford-street.—It is proposed to start work shortly upon the erection of the centre and main entrance block of the new premises of Messrs. Selfridge & Co., Ltd., uniting the east and west blocks. Messrs. Graham, Anderson, Probst & White, 11, Hanover-square, W.1, and Sir John Burnet & Partners, 1, Montague-place, W.C.1, associated architects.

Peckham.—Alterations and additions are being made to shop premises in Rye-lane, S.E., for Messrs. Williamsons, Ltd., provision merchants. Messrs. George Parker & Sons, Ltd., 124, Sumner-road, Peckham, S.E.

Peckham.—It is announced that the direc-

COMPARISON OF PRICES OF BUILDING MATERIALS IN MARCH, 1926, WITH CURRENT PRICES.

Materials.	March 1, 1926. £ s. d.	April 1, 1926. £ s. d.	Rise. %	Fall. %
Bricks—				
Best Stocks	4 3 6	4 3 6	—	—
Flettons	2 13 3	2 13 3	—	—
Glazed	21 10 0	21 10 0	—	—
Thames Ballast	0 10 6	0 10 6	—	—
Thames Sand	0 14 6	0 14 6	—	—
Shingle (¼ in.)	0 12 9	0 12 9	—	—
Portland Cement	2 18 0	2 18 0	—	—
Ground Blue Lias Lime	2 4 6	2 4 6	—	—
Grey Stone Lime	2 11 9	2 11 9	—	—
Bath Stone	0 2 9½	0 2 9½	—	—
Portland Stone	0 4 4	0 4 4	—	—
Good Sound Building Timber—				
4 in. × 11 in.	28 0 0	28 0 0	—	—
3 in. × 11 in.	25 0 0	25 0 0	—	—
2 in. × 11 in.	25 0 0	25 0 0	—	—
3 in. × 9 in.	24 0 0	24 0 0	—	—
3 in. × 7 in.	20 0 0	20 0 0	—	—
3 in. × 4 in.	22 0 0	22 0 0	—	—
Slates—				
24 in. × 12 in.	37 12 6	37 12 6	—	—
22 in. × 12 in.	34 0 0	34 0 0	—	—
20 in. × 10 in.	25 12 6	25 12 6	—	—
16 in. × 10 in.	17 12 6	17 12 6	—	—
16 in. × 8 in.	13 15 0	13 15 0	—	—
R.S. Joists	12 10 0	12 10 0	—	—
Iron—				
Common Bars	13 0 0	13 0 0	—	—
Mild Steel Bars	10 0 0	10 0 0	—	—
Steel Bars	10 0 0	10 0 0	—	—
Cut Nails	19 0 0	19 0 0	—	—
Sheet Lead	45 10 0	43 10 0	—	4.40
Glass—				
15 oz. Sheet	0 0 3½	0 0 3½	—	—
21 oz. Sheet	0 0 4½	0 0 4½	—	2.70
26 oz. Sheet	0 0 5½	0 0 5	—	7.00
Raw Linseed Oil	0 3 3	0 3 3	—	—
Turpentine	0 5 6	0 5 7	1.51	—
Ground English White Lead	55 15 0	54 5 0	—	2.69
White Lead Paint	75 15 0	72 15 0	—	3.83
Red Lead	49 0 0	48 0 0	—	2.04

tors of Messrs. Jones & Higgins, Ltd., drapers, have in contemplation the refronting and remodelling of the upper floors of their premises at Nos. 3-21, Rye-lane, S.E.

Regent's Park.—A new reptile house is to be erected in the grounds of the Zoological Society of London at Regent's Park, W. Messrs. Prestige & Co., Ltd., builders, Cambridge Wharf, Grosvenor-road, S.W.1. Messrs. Moreland, Hayne & Co., Ltd., steelwork, 80, Goswell-road, E.C.1. Mr. E. Guy Dawber, P.R.I.B.A., architect, 18, Maddox-street, W.1.

Richmond.—Mr. W. T. Yates, builder, 171, Hertford-road, Enfield, N.9, is carrying out the erection of the 12 shops and flats to be built in Paradise-street, by London Maisonettes Co., Ltd., John-street, W.C. Messrs. Niven & Wigglesworth, architects, 7, John-street, Bedford-row, W.C.1.

Strand.—The L.C.C. is obtaining Parliamentary powers for the acquisition, setting back, and rebuilding of premises in the Strand, W.C., between Villiers-street, and George-street. Mr. G. Topham Forrest, F.R.I.B.A., architect, County Hall, S.E.1.

Stratford, E.—A tender submitted by Messrs. Courtney Pope & Co. for new bronze metal arcade fronts for J. R. Roberts' Stores, Ltd., has been accepted at £11,237. The frontage is 250 ft. long. The architects for the arcade and the reconstruction of the buildings over are Messrs. George Baines & Son, FF.R.I.B.A., 121, Victoria-street, S.W.1.

Surbiton.—An estate in Lingfield-avenue, is being developed for residential purposes, and plans have been prepared for blocks of semi-detached houses. Messrs. Thorne & Thorne, Ltd., builders, 37, Westwell-road, Streatham Common, S.W.16.

Thornton Heath.—Mr. W. Basil Young, surveyor, Tram Terminus, Addiscombe, is negotiating for the sale of a site on the main road for shop property development.

Thurloe-place, S.W.—A site adjoining "The Rembrandt" Hotel has been let on building lease by Messrs. Garrett, White & Poland, for the erection of a block of high-class flats and shops. The builders are Messrs. C. P. Roberts & Co., Tyssen-street, Dalston; and the architect is Mr. H. Gilbert, of 43, Finsbury-square, E.C.

Twickenham.—Two sites in London-road have been disposed of for the erection of shops and showrooms. Mr. Frederick C. Clarke, surveyor, 47, London-road, Twickenham.

Upper Baker-street.—Head offices are to be erected upon a corner site in Upper Baker-street and New-street, W.1, by the Abbey-road Permanent Building Society, 16, Finchley-road, N.W.8. Portland stone, brick and steel building. Messrs. St. Mary's Wharf Cartage Co., Ltd., demolition of old buildings, 13, South Wharf, Paddington Basin, W.2. Mr. Delissa Joseph, F.R.I.B.A., architect, 2, Basinghall-avenue, Basinghall-street, E.C.2.

Victoria.—Excavation is being carried out on the site in Wilton-road, S.W.1, for the restaurant and office building to be erected by the Aerated Bread Co., Ltd., Camden Town, N.W. Messrs. B. Goodman, Ltd., contractors, Haggerston-road, E. Messrs. William Woodward & Sons, architects, 15, Great James-street, W.C.

Westminster.—Plans are being prepared for the erection of new buildings, including a library in Orange-street, S.W.1. Mr. A. N. Prentice, F.R.I.B.A., architect, Hastings House, Norfolk-street, Strand, W.C.

Wimbledon.—Housing development is taking place in Wimbledon and Raynes Park, S.W.20, where the Cannon Hill Estates, Raynes Park, S.W.20, are building houses with lock-up garages adjoining.

Wimbledon.—Plans are being prepared for a house on the Barnes Field Estate, which is being developed near Wimbledon Common. Mr. R. Kitching Ellison, A.R.I.B.A., architect, 5, York Buildings, Adelphi, W.C.

Woodside Park.—Semi-detached houses are being erected on an estate in Court House-road, Nether-street, Finchley, N.12. Mr. P. D. Walker, builder, 81, Woodlands-avenue, Finchley, N.3.

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons.	Bricklayers.	Carp'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Lab'rers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Brighton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dudley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
E. Glam. (Mon. Vall.)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London (12 m. radius)	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
London (12-15 m. radius)	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/3½
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/3½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3½
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/3½
Rugby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/3½
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/3½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/3½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/3½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/3½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2½
Walsall	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/3½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/3½
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	

(For rates of wages in the Building Trade in Scotland, see page 618.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

APRIL 12.—**Belfast.**—ADDITIONS.—To St. Malachy's College, Antrim-road. J. P. McArdle, architect and civil engineer, Ulster Bank Chambers, 4, Ann-street.

APRIL 12.—**Bovey Tracy.**—PAVILION.—Children's pavilion and sanitary annexe at Hawkmoor sanatorium, for the Devon C.C. County Architect, 1, Blackall-road, Exeter. Deposit £1 1s.

APRIL 12.—**Bulkington.**—BUILDING.—For (1) construction of a reinforced concrete water tower; and (2) laying of about 1,170 yds. 4 in. and 980 yds. 6 in. cast-iron mains and specials, for the U.D.C. O. G. Laban, surveyor. Deposit £2 2s. each.

APRIL 12.—**Bulkington.**—HOUSES.—Ten houses, in pairs, on Butt Field; 10 houses, in pairs, on Weston-lane, including drainage, for the U.D.C. O. G. Laban, surveyor. Deposit £2 2s.

APRIL 12.—**Halifax.**—HOUSES.—For (*a*) 40 houses, Boothtown, and (*b*) 40 houses, Nursery-lane, for the C.B. P. Saunders, Town Clerk. Deposit £2 2s.

APRIL 12.—**Irvine.**—HOUSES.—For (1) 15 blocks each of four houses of two apartments, and (2) 10 blocks each of four houses of three apartments, for the T.C. R. Frew, architect, 3, High-street. Deposit £1 1s.

APRIL 12.—**Lanark (Middle Ward).**—HOUSES.—Twenty houses at Chapelhall, 30 houses at Calderbank, 34 houses at Broomhouse, 34 houses at Meikle Earnock, for the C.C. P. t. Smith, Housing and Town-Planning Department, District Offices, Hamilton.

APRIL 12.—**Mirfield.**—HOUSES.—Thirty-one houses on the Granny-lane site, for the U.D.C. E. Gill. Deposit £1.

APRIL 12.—**Rotherham.**—HOUSES.—Thrybergh, 50 houses; Ravenfield, 50 houses; Dalton, 40 houses; Catcliffe, 10 houses. Brampton Bierlow, 50 houses; Bramley, 40 houses; Wickerley, 20 houses; Thurcroft, 50 houses, for the R.D.C. Oxley & Coward, Clerks, Grove-road, oorgate. Deposit £2 2s.

APRIL 12.—**Salford.**—MORTUARY.—Erection of a new mortuary at the Union Infirmary, Stott-lane, Pendleton, for the Guardians of the Union. E. H. Inchley, Clerk, Poor Law Offices, Eccles New-road, Salford. Deposit £2 2s.

APRIL 12.—**Stoke-on-Trent.**—RE-COVERING.—Of roof, Palais-de-Dance, Hanley, for the T.C. E. B. Sharpley, Town Clerk.

APRIL 12.—**Swansea.**—HOUSES.—Thirty at Gorseinon, 20 at Gowerton, 20 at Loughor, 20 at Pontarduais, 10 at Penllergaer, for the R.D.C. J. Teifion J. Williams, Lic. R.I.B.A., 3, Temple-buildings, Goat-street. Deposit £2 2s.

APRIL 12.—**Westbury and Whorwellsdown.**—HOUSES.—Ten parlour and eight non-parlour houses at Southwick, and six parlour houses at Dilton Marsh, for the R.D.C. W. W. Snallum, architect, Church-street, Trowbridge.

APRIL 13.—**Airedale.**—LIGHTING.—Installation of electric lighting at Ferry Fryston, Airedale new school, for the West Riding E.C. Education Department, County Hall, Wakefield.

APRIL 13.—**Athy.**—RECONSTRUCTION.—Of the Courthouse at Athy, Co. Kildare, for the Kildare C.C. Foley & O'Sullivan, Grafton Chambers, 102, Grafton-street, Dublin.

APRIL 13.—**Bentley-with-Arksey.**—LIGHTING.—Installation of electric lighting at the new school, for the West Riding E.C. Education Department, County Hall, Wakefield.

APRIL 13.—**Castleford.**—HEATING.—Installation of a low-pressure boiler and heating apparatus at Castleford Temple-street new school, for the West Riding E.C. The Education Department, County Hall, Wakefield.

APRIL 13.—**Edmonton.**—PAINTING AND REPAIRS.—Of Chase Farm Schools, Enfield, for the Guardians of the Edmonton Union. J. C. S. Mummery, Guardians' Architect, 34, Bloomsbury-square, W.C. 1.

APRIL 13.—**Erith.**—HOUSES.—For (*a*) sixty-two houses, consisting of nine blocks of six and four pairs; and (*b*) forty-two houses, consisting of two blocks of ten, two blocks of eight, and one block of six, all including drainage, pavings, and fencing complete, on the Lesney Farm site, for the U.D.C. H. Hind, Engineer and Surveyor, Council Offices. Deposit £2 2s.

APRIL 13.—**Hereford.**—ALTERATIONS.—To the Post Office, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

APRIL 13.—**Kexbrough.**—SCHOOL.—New school for 300 children at Darton, for the West Riding E.C. The Education Department, County Hall, Wakefield.

APRIL 13.—**Maidstone.**—HOUSES.—Thirty-six houses in Upper Fant-road, for the T.C. T. F. Bunting, Borough Surveyor, Fairmeadow.

APRIL 13.—**Mayobridge.**—SCHOOL.—Public elementary school at Mayobridge, co. Down, for the Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square, West, Belfast. Deposit £1.

APRIL 13.—**Thurnscoe.**—HOUSE.—Caretaker's house at the new school, for the West Riding E.C. Education Department, County Hall, Wakefield.

APRIL 13.—**West Derby.**—PAINTING.—External painting to Relief Offices, High Park-street, for the B.G. E. B. Bailey, L.R.I.B.A., 9, Cook-street, Liverpool.

APRIL 14.—**Cardiff.**—SCHOOL.—New mixed school at Whitchurch-road, for the Rev. C. F. Ottway, New Zealand-road. F. R. Bates & Son, A.R.I.B.A., 30, Commercial-street, Newport, Mon. Deposit £2 2s.

APRIL 14.—**Ireland.**—SCHOOL.—Erection, furnishing, and enclosing of a National School at Cnoc-na-Naomh, co. Tirconnaill, for the Commissioners of Public Works. J. J. Healy, secretary, Oifig Oibreach Puibli (Office of Public Works), Baile Atha Cliath (Dublin). Deposit £1.

APRIL 14.—**Ponteland.**—BUILDING.—Two-storied building, including vestries, kitchen, and lavatories, in connection with the extension of the Wesleyan Chapel. Mr. C F. Hunter, The Crest.

APRIL 14.—**Watford.**—STATION SORTING OFFICE.—To be erected in concrete and steel, for H.M. Office of Works. The Contracts Branch, King Charles-street, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

APRIL 15.—**Belfast.**—SHED.—Shed in Vegetable Market, for the C.B. City Surveyor.

APRIL 15.—**Clacton.**—KIOSKS.—Six kiosks in the undercliff, Clacton-on-Sea, for the U.D.C. Surveyor.

APRIL 15.—**Cudworth.**—CONVENIENCES.—Shelter and ladies' and gents' conveniences, &c., on the Welfare Scheme, for the Miners' Welfare Committee. J. A. Haigh, surveyor and engineer.

APRIL 15.—**Ferndale.**—BUILDING.—Erection of a post office at Ferndale, Glam, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

APRIL 15.—**Kingston-upon-Hull.**—BUILDING.—For 36 in. c.i. pipework chamber, and penstock, for the C.B. H. Bell, City Electrical Engineer and Manager, Electricity Works, Sculcoates-lane, Hull. Deposit £1 1s.

APRIL 15.—**Manchester.**—PAVILION.—Bowl-house and tennis pavilion at Debdale Recreation Ground, for the T.C. City Architect. Deposit £1 1s.

APRIL 15.—**Reading.**—HOUSES.—Erection of 156 on the Oxford-road housing site, for the Reading C.B. Contractors may quote for the whole or block lots of 56, 52 and 48 respectively. Housing Architect, Municipal Buildings, St. Laurence's Churchyard.

✱APRIL 16.—**Dublin.**—HOUSES.—Erection of 104, comprised in section 3 of the Croydon Park extension of the Marino housing scheme, for the Borough Commissioners. City Treasurer's Office, Lord Edward-street, Dublin. Deposit £2.

APRIL 16.—**Durham.**—PAINTING.—Outside painting of the following County Police stations and houses: Police stations: (1) Brandon; (2) Crook; (3) Durham headquarters; (4) Shildon; (5) Tow Law; (6) Willington; (7) Ferryhill; (8) Sacriston; (9) Staindrop; (10) Wingate; (11) Coxhoe; (12) Stockton-on-Tees; (13) Birtley; (14) Chester-le-street; (15) Felling; (16) Ryhope. Police houses: (17) 7A, South-street, Spennymoor; (18) 14, Seymour-street, Horden; (19) 73, Parliament-street, Stockton; (20) 10, Oaks Bank, Ramshaw; (21) Oakley House, Paragon-street, Stanhope, for the C.C. Wm. J. Merrett, County Surveyor and Architect, 43, Old Elvet, Durham.

APRIL 17.—**Cardiff.**—HOUSES.—Twenty-four houses at Rhoose, Porthkerry, for the R.D.C. M. Warren, Clerk, Park House, 20, Park-place. Deposit £2.

APRIL 17.—**Cowbridge.**—COTTAGE.—Caretaker's cottage, at the sewage disposal works, Llanharran, for the R.D.C. Thomas & Morgan & Partners, architects and civil engineers, 23, Gelliwastad-road, Pontypridd.

APRIL 17.—**London.**—ALTERATIONS AND ADDITIONS.—To Dulwich Public Library, Lordship-lane, Dulwich, for the Camberwell B.C. William Bell, A.M.Inst.C.E., P.A.S.I., Borough Engineer and Surveyor, Town Hall, Camberwell, S.E.5. Deposit £3 3s.

APRIL 17.—**Totnes.**—HOUSES.—Twenty-two houses on a site adjoining the Drill Hall, for the T.C. J. L. Davies, Borough Surveyor. Deposit £2 2s.

APRIL 17.—**Worthing.**—HOUSE.—Pump house at Long Furlong, Patching, for the Corporation. F. Roberts, Water Engineer.

APRIL 19.—**Brynmawr.**—HOUSES.—Twenty-six houses on the housing site, Twyncynghordy, for the U.D.C. J. J. Quirk, surveyor.

APRIL 19.—**Chelmsford.**—HOUSES.—Twelve houses at Woodham Ferrers, for the R.D.C. J. Dewhirst, engineer and surveyor, Waterloo-lane.

✱APRIL 19.—**Eastbourne.**—HOUSES.—Erection of 44 on the Hampden Park housing site and 66 on the Crumbles housing site, of brick or alternatively of concrete construction, for the Town Council. Borough Engineer's Office, Town Hall, Eastbourne. Deposit £2 2s.

APRIL 19.—**Ellesmere Port and Whitby.**—HOUSES.—Seventy-eight semi-detached houses in Grace-road, Wilkinson-street and Westminster-road, Ellesmere Port, for the U.D.C. T. W. Francis, Clerk. Deposit £5 5s.

APRIL 19.—**Maesteg.**—BUILDING.—For (*a*) bowls and tennis pavilion; (*b*) children's shelter and play-shed, for the U.D.C. J. Harpur, engineer and surveyor.

APRIL 19.—**Menston.**—PAINTING.—Outside painting of several buildings at the Mental Hospital, Menston, near Leeds, for the West Riding C.C. W. E. H. Burton, architect and engineer, Mental Hospitals Board Offices, Wakefield.

APRIL 19.—**Redhill.**—PAVILION.—Construction of a new pavilion and the carrying out of alterations to the existing building at the Memorial Sports Ground, for the Reigate T.C. F. T. Clayton, Borough Surveyor, Municipal Buildings, Reigate.

APRIL 19.—**Redhill.**—SPORTS AND WORKS BUILDINGS AND FENCING.—Erection of, at the Memorial Sports Ground, for the Reigate T.C. L. P. Rees, 53, Station-road, Redhill.

APRIL 19.—**West Ham.**—BUILDINGS.—Eight blocks of buildings at Manor-road, Canning Town, comprising 152 self-contained flats, in sections, as follows: Section A, blocks Nos. 1 and 2 (32 flats); Section B, blocks Nos. 3, 4 and 5 (56 flats); Section C, blocks Nos. 6, 7 and 8 (64 flats), for the County Borough Council. Borough Engineer, Town Hall, West Ham, E. 15. Deposit £2.

APRIL 19.—**Widnes.**—SCHOOL.—Erection of a new school, for the Borough of Widnes Education Committee. F. E. and C. H. Barlow, architects, Ditton-road Chambers, Widnes. Deposit £3 3s.

APRIL 20.—**Belfast.**—PAINTING.—Painting and decoration of the Lord Mayor's rooms, City Hall, for the C.B. City Surveyor.

APRIL 20.—**Coventry.**—EXTENSION.—Extensions to Gulson Library, for the T.C. E. H. Ford, City Engineer and Surveyor. Deposit £2 2s.

APRIL 20.—**Dundee.**—SCHOOL.—New Central advanced school at Blackness-road, for the E.C. Maclaren, Soutar & Salmond, F.R.I.B.A., 16, South Tay-street. Deposit £2 2s.

APRIL 20.—**Goole.**—HOUSES.—Twelve non-parlour type houses at Swinefleet, for the R.D.C. R. Plewes, surveyor. Deposit £1 1s.

APRIL 20.—**Sunderland.**—WORKS.—Construction of a dry area at the Maternity Home (house No. 4), for the C.B. Borough Engineer. Deposit £1 1s.

✱APRIL 20.—**Watford.**—TEA PAVILION AND PUBLIC CONVENIENCE.—To be erected for the Borough of Watford in Cassiobury Park. W. W. Newman, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit 2 guineas, to the Borough Treasurer.

APRIL 21.—**Godalming.**—COTTAGES.—Four blocks of four cottages at Station-road, Farncombe; one block of four cottages at Borough-road, Godalming; and one pair of cottages at Unstead, for the T.C. G. B. Hartfree, Borough Surveyor. Deposit £2 2s.

✱APRIL 21.—**London.**—CLEANING, PAINTING AND REPAIRS.—(1) North-Eastern Fever Hospital, St. Ann's-road, Tottenham, N.15; (2) North-Western Ambulance Station, Lawn-road, Hampstead, N.W. 3, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 in respect of each work.

✱APRIL 21.—**London.**—REFUSE DESTRUCTOR.—Installation of, with incidental building work, at the North-Western Fever Hospital, Lawn-road, Hampstead, N.W. 3, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

✱APRIL 21.—**London.**—CLEANING AND PAINTING.—At the South-Western Hospital, London-road, Stockwell, S.W.9, for the Metropolitan Asylums Board. Office of the Board, Embankment, E.C.4. Deposit £1.

APRIL 21.—**Prestwich.**—BUILDING.—Construction of a paddling pool and sandpit and surfacing of a recreation ground in Prestwich Clough, for the U.D.C. Surveyor.

✱APRIL 21.—**Surrey and London.**—BUILDING AND SANITARY WORK.—(1) Belmont Laboratories, Sutton, Surrey, new guinea-pig house; (2) Lambeth Casual Ward, Wincott-street, S.E. 11, additional sanitary accommodation, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 1s. in respect of each work.

✱APRIL 21.—**Swansea.**—HOUSES.—Erection of a further 120 houses at Morriston, for the County Borough Council. Ernest E. Morgan, A.R.I.B.A., Borough Architect, 3, Prospect-place, Swansea. Deposit 3 guineas.

APRIL 21.—**Wakefield.**—RESIDENCES.—Pair of semi-detached residences at the Wakefield Mental Hospital, for the West Riding C.C. W. E. H. Burton, architect and engineer, Mental Hospitals Board Offices. Deposit £1.

APRIL 22.—**Crewe.**—HOUSES.—Erection of 100, in two groups of 50 houses, for the Municipal Housing Committee. E. G. Timbrell, F.I.A.A., &c., Architect to the Committee, Municipal Buildings, Crewe. Deposit £2 2s.

✱APRIL 22.—**London.**—DECORATIONS.—Carrying out of interior decorations to certain houses and flats on the Redan and St. Louis housing estates, and for repairs to roof and rendering of flank walls of Nos. 234 and 236, Knight's-hill, for the Lambeth Borough Council. Osmond Cattlin, M.Inst.C.E., Borough Engineer, Lambeth Town Hall, Brixton-hill, S.W.2, on receipt of a stamped addressed envelope.

APRIL 22.—**London.**—PAINTING.—Cleaning and repainting station buildings, cranes, &c., at the following places:—Swansea Docks, Bassaleg Junction, Risca, &c., Portskewett, Severn Tunnel Junction, &c., Bridgend, Porthcawl, &c., Morebath, Barnstaple, &c., Durston, Kingswear, &c., Bridport, Dorchester, &c., Wheatley, Watlington, &c., Taplow, Henley, &c., Victoria and Albert Docks, Smithfield, &c., Ealing Broadway, Southall, &c., Worcester (Foregate-street), Great Malvern, &c., Cheltenham Spa (St. James), &c., Winchcombe, Bishops Cleeve, &c., Shrivenham, Westbury, &c., Bath, Bristol, &c., Bedminster, Weston-super-Mare, &c., for the G.W.R. F. R. E. Davis, secretary, Paddington Station, London, W.2.

APRIL 22.—**Westhampnett.**—HOUSES.—Forty houses, proposed to be built on the Council's sites situated in Beach-road, Selsey, for the R.D.C. W. D. Rasell, Clerk, Pallant House, Chichester.

APRIL 23.—**Chelmsford.**—CONVENIENCES.—Three conveniences in the Town Council's Recreation Grounds, for the T.C. E. J. Miles, Borough Engineer, Rainsford House.

APRIL 24.—**Ashford.**—PAINTING.—Cleaning and painting of the "Harper Fountain," Victoria Park, for the U.D.C. Wm. Terrill, surveyor, 5, North-street.

APRIL 24.—**Clevedon.**—HOUSES.—Eighteen houses on Griffin-road estate, for the U.D.C. G. W. Knowles, surveyor, Verwood, Madeira-road.

APRIL 26. — **London.** — FIRE STATION BUILDINGS. — Erection of a fire station with flats over, stores, &c., at Friern-lane, Friern Barnet, for the U.D.C. F. P. Kindell, A.M.Inst.C.E., Engineer and Surveyor to the Council, Council Offices, The Priory, N. 11. Deposit £2.

✱APRIL 26. — **London.** — REPAIRS. — External renovations, repairs to roofs, and other sundry work at the Administrative Offices, &c., 61, Bartholomew-close, E.C. 1, for the Guardians of the Poor of the City of London Union. Pridmore & Groom, Architects to the Guardians, 3, Broad-street Buildings, E.C. 2.

APRIL 26. — **Newcastle-upon-Tyne.** — HOUSES.—Execution of the following brick houses on the Walker estate: (1) Walker estate No. 1 scheme, 230 houses; (2) Walker estate No. 2 scheme, 36 houses; (3) Wharrier-street, 26 houses, for the Housing Committee of the Corporation. Housing Architect, 18, Cloth Market. Deposit, 3 guineas in respect of No. 1, 2 guineas in respect of Nos. 2 and 3, to the City Treasurer.

APRIL 26.—**Wakefield.**—STORES.—New central stores, Cliff-lane, for the West Riding C.C. West Riding Architect, County Hall, Wakefield.

APRIL 27.—**Dublin.**—CENTRE.—Model child welfare centre, for the C.B. McDonald & Dixon, architects, 20, Ely-place. Deposit £5 5s.

APRIL 27.—**Durham.**—SCHOOL.—Erection of the Eppleton Colliery new Council school, for the Durham C.C. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

✱APRIL 28. — **London.** — MATERNITY AND CHILD WELFARE CLINIC.—Erection of, in Wellington-road, Bow, for the Metropolitan Borough Council of Poplar. Harley Heckford, M.Inst.C.E., Borough Surveyor, Council Offices, Poplar. Deposit £3 3s.

✱APRIL 30.— **Southampton.**—SCHOOL ENLARGEMENT, &C.—Enlargement of Bordon Council School, including the erection of two new classrooms, cloak room, staff room, and manual instruction and cookery room, for the County Borough Council. A. L. Roberts, County Architect, The Castle, Winchester. Deposit 1 guinea, by cheque, payable to the Hants County Council and crossed "Lloyds Bank, Ltd., Capital & Counties Branch, Winchester."

MAY 1.—**Tewkesbury.**—HOUSES.—Twelve houses at the Priors Park site, for the T.C. W. Ridler, Borough Surveyor, Station-street. Deposit £2 2s.

✱MAY 10.—**Greenwich, S.E.10.**—CONCRETE JETTY. —Construction of a reinforced concrete jetty at the Tunnel Avenue Depot, East Greenwich, for the Metropolitan Borough Council. Borough Engineer and Surveyor, Town Hall, Greenwich, S.E.10, between the hours of 10 and 4 p.m., Saturdays (10 and 12 noon). Deposit £5 5s.

NO DATE.—**Callander.**—HOUSES.—Thirteen blocks, comprising two, three and four-apartment houses, in extension of Acreland scheme, for the T.C. E. Simpson, M'Michael & Davidson, architects, Stirling Deposit £1 1s.

NO DATE.—**Carlisle.**—HOUSE.—Shop and house along the Wigton-road, for Mr. Henderson. T. Taylor Scott, F.R.I.B.A., architect and surveyor, 36, Lowther-street.

✱NO DATE.—**Middlesex.**—INTERNAL DECORATIONS. —At the West Middlesex Hospital and other institutions, Isleworth, for the Guardians of the Brentford Union. F. E. Harmsworth, Clerk, Toolands House, 34, Twickenham-road, Isleworth, Middlesex, on receipt of a large size stamped addressed envelope.

NO DATE.—**Woodlesford.**—SCHOOL.—Sunday School to Wesleyan Church, Woodlesford. W. E. Richardson & Wm. Whitehead, A.R.I.B.A., architects, Rothwell, near Leeds.

MATERIALS, etc.

APRIL 12.—**Bristol.**—MATERIALS.—Portland cement, iron castings, wrought iron and steel, iron piping, lead, gun metal castings, for the Port Authority. T. A. Peace, Engineer, Chief Engineer's Office, Avonmouth Dock.

APRIL 12.—**Bungay.**—MATERIALS.—480 tons 1½ in. Mountsorrel granite, 30 tons 1 in. Mountsorrel granite, 320 tons 2 in. Wymondham flints, 140 tons Wymondham silt, 120 tons grit, for the U.D.C. H. Earl, surveyor.

APRIL 12.—**Fareham.**—GRANITE.—Granite and limestone, for the R.D.C. J. F. Whitear, surveyor, 97, West-street, Fareham, Hants.

APRIL 12.—**Lytham St. Anne's.**—MATERIALS.—For (1) granite and limestone, macadam chippings; (2) granite and limestone, tarred macadam; (3) Portland cement, for the T.C. Borough Surveyor.

APRIL 12.—**Maldon.**—MATERIALS.—Broken granite, Kentish flints, gravel, tar surfacing, for the R.D.C. E. J. Ennals, surveyor.

APRIL 12.—**March.**—GRANITE.—Granite, tarred slag, flints, chippings, limestone, gravel, shingle, binding silt, and refined tar, for the U.D.C. H. Hopkins, engineer and surveyor.

APRIL 12.—**Melton Mowbray.**—MATERIALS.—Granite and slag, grouting, surface dressing, repair of tarred footpaths, for the R.D.C. E. C. Moorhouse, Highway Surveyor, 20, Nottingham-street.

APRIL 12. — **Southampton.** — GRANITE. — Broken granite, for the C.P. J. A. Crowther, Borough Engineer, 33–35, French-street.

APRIL 12. — **Wandsworth.** — LIBRARY FURNITURE. —For (*a*) steel bookcases, shelves and cupboards; (*b*) furniture, counter and fittings. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham High-road, S.W. 17.

APRIL 13.—**Crompton.**—MATERIALS.—Drain pipes, flags (Whitworth and Rawtenstall), concrete flags, kerbs and edgings, grit setts, cement, macadam (limestone and granite), tar slag macadam, bricks (common and engineering), for the U.D.C. Surveyor.

APRIL 13.—**Leeds.**—GRANITE.—3,000 tons of granite-paving setts, for the T.C. E. W. Cockerlyne, Highways Engineer.

APRIL 14.—**Ely.**—MATERIALS.—220 tons tarred topping (½ in.), 7,064 tons granite, 1,510 tons pea, gravel, flint and shingle, and 1,410 tons rough stone, for the R.D.C. E. Spencer, surveyor, 22, Downham-road.

APRIL 14.—**Leigh.**—MATERIALS.—Limestone chippings, Barns flags, grit kerbs, sewerage pipes, castings carting, 1½ in. slag and dust, Portland cement, pitch, creosote and refined tar, for the T.C. Borough Surveyor.

APRIL 14.—**Manchester.**—RAILINGS.—Supplying and fixing of wrought-iron railings and gates at the Harpurhey High School for Girls, for the E.C. P. M. Heath, Town Clerk. Deposit £1 1s.

APRIL 14.—**Rochdale.**—RAILS.—100 tons of B.S.S. No. 7 tramway rails, for the C.B. S. H. Morgan, Borough Surveyor.

APRIL 15.—**Romford.**—MATERIALS.—820 tons tarred slag macadam, 450 tons 2 in. broken blue Guernsey granite, 250 tons ¾ in. granite chippings, 19,000 gallons of shellspra, for the U.D.C. F. G. Beaumont, engineer and surveyor.

APRIL 19.—**Great Yarmouth.**—MATERIALS.—Guernsey granite chippings, for the C.B. S. P. Thompson Borough Engineer.

APRIL 26.—**India.**—MATERIALS.—Steel bridgework, for the Director-General, India Store Department, Branch No. 16, Belvedere-road, Lambeth, S.E.1

APRIL 26.—**Prestwich.**—MATERIALS.—Cubical limestone chippings, granite setts, granite chippings, dressed edging kerb, lonkey setts, cement concrete flags, British Portland cement, tarred slag, tarred limestone, sand, for the U.D.C. M. A. Piercy, surveyor.

MAY 3.—**Karachi Port.**—CEMENT.—For 8,750 tons Portland cement, for the Trust. Rendel, Palmer & Tritton, 12–14, Dartmouth-street, Westminster, S.W.1.

ENGINEERING, IRON AND STEEL.

APRIL 12.—**Near Kinneil.**—EMBANKMENT.—Forming an embankment in tidal water, for the Forth Conservancy Board. J. & A. Leslie & Reid, C.E., 72A, George-street, Edinburgh. Deposit £1.

APRIL 13.—**Kilkenny.**—SHED.—Waiting shed at Fiddown Station, Co. Kilkenny, for the Great Southern Railway. C. E. Riley, Secretary, Kingsbridge Station, Dublin. Deposit £1 1s.

APRIL 13.—**Totnes.**—RESERVOIR.—Providing and laying 700 yards or thereabouts of 3 in. cast-iron socket pipe, building of 10,000-gallon reservoir, and other work at Kingswear, for the R.D.C. Mr. W. F. Tollit, surveyor, 6, Bridgetown. Deposit £1 1s.

APRIL 14.—**Roxwell.**—RECONSTRUCTION.—Of Roxwell Bridge, carrying the road from Roxwell Village to Willingale, over the Roxwell Brook, for the Essex C.C. W. H. Morgan, chartered civil engineer, Old Court, Chelmsford.

APRIL 16.—**Bristol.**—PILES.—140 14 in. by 14 in. by 35 ft. ferro-concrete piles, for the T.C. H. Faraday Proctor, Chief Engineer and General Manager, Colston-avenue. Deposit £2 2s.

APRIL 16.—**Rochdale.**—PILING.—4,000 super ft. of steel sheet piling, in 12 ft. lengths; 800 super ft. of steel sheet piling, in 8 ft. lengths, for the C.B. W. H. Hickson, Town Clerk.

APRIL 16.—**Thorne.**—BRIDGE.—Steel swing bridge to carry the Bawtry and Selby main road over the Stainforth and Keadby Canal, for the West Riding C.C. Surveyor, County Hall, Wakefield. Deposit £5.

APRIL 19.—**Holland.**—BRIDGE.—For (1) construction of the foundations, abutments, retaining walls and floors in ferro-concrete, and for timber fendering, &c., preparatory to the erection of a steel lift bridge to carry the new by-pass road over the tidal River Welland, in the urban area of Spalding, and connecting the Spalding–Holbeach and the Spalding–Boston main roads; and (2) new road approximately 900 yds. in length in concrete, together with all necessary excavating, filling-up, draining, kerbing, fencing, &c. The construction of four small culverts in concrete is also included in the work, for the C.C. Wm. A. Rogerson, County Surveyor, Guildhall, Boston, Lincs. Deposit £5 5s.

APRIL 20.—**Port Ellen.**—ALTERATIONS.—Altering and improving the existing tanks supplying the Port Ellen Water District, the construction of a sand filter, and the supply of all necessary cast-iron pipes, &c., for the Argyll C.C. W. R. Copland & Sons, C.E., 146, West Regent-street, Glasgow. Deposit £1 1s.

ROAD, SEWERAGE, AND WATER WORKS.

APRIL 12.—**Barnsley.**—MAKING-UP.—Of Alexandra-terrace and Coronation-terrace, Ardsley; and the back road between Hope-street and Prince Arthur-street, for the C.B. Borough Engineer.

APRIL 12.—**Blean.**—SEWER.—Construction of about 133 yds. lin. of 9 in. stoneware pipe sewer, and 107 yds. lin. of 6 in. stoneware pipe sewer, four manholes, and other works appertaining thereto, at Herne Common, for the R.D.C. F. A. Ward, engineer, The Institution, Herne Common, Herne Bay.

APRIL 12.—**Hendon.**—FOOTPATH.—Widening works, road and footpath construction in The Broadway and Flower-lane, Mill Hill, for the U.D.C. A. O. Knight, Engineer and Surveyor to the Council, Town Hall, Hendon, N.W.4. Deposit £5.

APRIL 12.—**Hendon.**—MAKING-UP.—Decoy-avenue, Hillcrest-avenue, and Eastside-road, for the U.D.C. A. O. Knight, Engineer and Surveyor. Deposit £5.

APRIL 12.—**Kilmarnock.**—PIPES.—Supply and laying of about 740 yards of 12 in. to 24 in. fireclay pipes in a ditch at Amlaird Farm, for the T.C. W. Dunbar, Water Engineer, Market Bridge.

APRIL 12.—**Manchester.**—PAVING.—Draining, paving (rock asphalte), flagging (artificial flags), &c., Lansdowne-road, West Didsbury, from Barlow Moor-road to Queen's-road; College-road, Whalley Range, from the City boundary near Upper Chorlton-road to the westerly boundary of the Lancashire Independent College; Park-drive, Whalley Range. Draining, paving (tar macadam), flagging (artificial flags), &c., Hart-road (late Demesne-road) from a point 105 yds. from the northerly side of Wilbraham-road to a point 197 yds. distant in a north-westerly direction. Draining, paving (concrete), &c., passage behind 141, Claude-road, and 120–140, Barlow Moor-road, Chorlton-cum-Hardy, for the T.C. P. M. Heath, Town Clerk. Deposit £1 1s.

APRIL 12.—**Mansfield Woodhouse.**—FENCING.—For (1) construction of two hard tennis courts, and (2) provision and erection of unclimbable iron fencing, for the U.D.C. Surveyor.

APRIL 12.—**Prestwich.**—WIDENING.—Widening and reconstruction of Scholes-lane from Hope Park-road to Heywood-road, including surface water drainage, for the U.D.C. Surveyor.

APRIL 12.—**The Maldens and Coombe.**—REPAIRS.—For (1) making-up the carriageway with reinforced concrete and maintaining Highclere-road, New Malden; (2) paving the footways with artificial stone slabs in Highclere-road, and (3) new road off California-road (Housing Estate), for the U.D.C. R. H. Jeffes, Engineer and Surveyor, Municipal Offices, New Malden. Deposit £2 2s. each.

APRIL 13.—**Carlisle.**—DRAINAGE.—Construction of a complete cast-iron drainage system for the new electricity generating station, at Willow Holme, for the T.C. Henry C. Marks, City Engineer and Surveyor, 18, Fisher-street. Deposit 10s.

APRIL 13.—**Leeds.**—REPAIRS.—Reinstating of trench openings in the city, and kerbing, flagging, paving and macadamising Cliffdale-road, for the T.C. Highways and Permanent Way Engineer, 1, Swinegate. Deposit £1 1s. each.

APRIL 13.—**Mitcham.**—SEWER.—Extension of sewer at Manor-road, approximate length 420 yds., for the U.D.C. S. Chart, clerk.

APRIL 13.—**Southgate.**—SEWER.—Construction of a foul sewer, consisting of about 167 yds. lin. 9 in. diameter stoneware pipes, and for a surface water sewer, consisting of about 175 yds. lin. 30 in. diameter and 100 yds. lin. 24 in. diameter concrete tubes, and 377 yds. lin. 9 in. diameter stoneware pipes, with necessary manholes, &c., in Farm-road and Firs-lane, Winchmore Hill, for the U.D.C. R. Phillips, surveyor.

APRIL 13.—**Tipton.**—SEWER.—Construction of about 300 lin. yds. of 9 in. stoneware, and 50 lin. yds. of 12 in. cast-iron pipe sewer, from Locarno-road to Alexandra-road, for the U.D.C. W. H. Jukes, surveyor. Deposit £2 2s.

APRIL 14.—**Middlesex.**—TARSPRAYING.—Tarspraying approximately 99,000 yds. super of gravelled footpaths, for the C.C. A. Dryland, County Engineer and Surveyor, County Engineer's Department, Guildhall, Westminster, S.W.1.

APRIL 14. — **Near Chichester.** — SEWAGE.—Sewage disposal scheme at Aldingbourne House, near Chichester, for the West Sussex C.C. Haydn P. Roberts, F.R.I.B.A., County Architect, Westgate, Chichester.

APRIL 14.—**Woking.**—FOOTPATHS.—Constructing new tarpaved footpaths and for the retopping of existing footpaths, for the U.D.C. G. J. Wooldridge, surveyor.

APRIL 17.—**Harrow-on-the-Hill.**—IMPROVEMENTS.—Public street improvement in Pinner-road, for the U.D.C. J. P. Bennetts, engineer and surveyor. Deposit £3.

APRIL 17.—**Luton.**—ROAD.—New road about 456 yds. long, and also foul and storm water sewers, on the Russell Rise housing site, for the T.C. J. W. Tomlinson, Borough Engineer and Surveyor.

APRIL 17.—**Pontefract.**—PIPES.—Laying of about, 3,200 tons of cast-iron pipes, mainly 16 in. diameter, between Roall pumping station and Parkhill reservoir, for the T.C. W. H. Newton, Water Engineer. Deposit £3 3s.

APRIL 20. — **Barrow-upon-Soar.** — SEWERS. — Construction of about 850 yds. of 9 in. and 7 in. stoneware pipe sewers, together with manholes and other works, in Black-lane and adjacent land and streets in the parish of Birstall, for the R.D.C. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester. Deposit £1 1s.

APRIL 20.—**Buenos Aires.**—PIPES.—Stoneware pipes required for the sanitary works of Rio Cuarto and San Nicolas, for the Oberas Sanitarias de la Nacion. Dept. of Overseas Trade, 35, Old Queen-street, S.W.1.

APRIL 21.—**Luton.**—ROAD.—Construction of new road about 60 yds. long, with storm water sewer, off the Hitchin road at Turner's Knoll, for the T.C. J. W. Tomlinson, Borough Engineer and Surveyor, 18, Upper George-street.

APRIL 22.—**Bathgate.**—PIPES.—Cutting tracks and laying and jointing about 2½ miles of 12 in. cast-iron pipes from Pates Hill tank to Breich Cross-roads, for the D.C. J. & A. Leslie & Reid, C.E., 72A, George-street, Edinburgh. Deposit £1.

APRIL 22.—**Bury.**—RAILINGS.—Removal of certain existing fencing and the provision of new iron railings, together with foundations, &c., in connection with the extension of the Barlow recreation ground at Blackford Bridge, for the C.B. Borough Engineer, Bank-street. Deposit 10s. 6d.

APRIL 24.—**Lytham Saint Anne's.**—SEWER.—Construction of approximately 2,380 yds. of 9 in., 12 in., 18 in., 30 in., 42 in. and 48 in. diameter concrete main sewer, together with manholes, ventilating shafts, and other appurtenant works, for the T.C. G. W. Lawson, Borough Engineer and Surveyor. Deposit £5.

APRIL 24.—**Sutherland.**—REPAIRS.—Repair and maintenance of roads: Bonar-Lairg-Tongue-road, 47 miles 1,496 yards; Inversbin-Lochinver-road, 44 miles 1,320 yards, and Scourie-road, from Terry Junction to Laxford, 34 miles 616 yards, for the C.C. County Road Surveyor, Golspie.

APRIL 26.—**Liverpool.**—PIPELAYING.—Laying of steel pipes of 42 in. internal diameter, and other ancillary works, as follows:—From Hirnant to Wern-ddu, in the County of Montgomery, and from Lloran-Ganol to Bodlith, in the County of Denbigh, for a distance of about 4½ miles, for the T.C. Water Engineer, Alexandra Buildings, 55, Dale-street. Deposit £5 5s.

APRIL 27.—**Batley.**—PIPES.—Laying and jointing of a pipe line between the Brownhill Reservoir, for the T.C. G. H. Hill & Sons (Manchester), Civil Engineers, 40, Kennedy-street, Manchester. Deposit £3 3s.

NO DATE.—**Newton Stewart.**—RELAYING.—Excavating and relaying of about 3,000 sq. yds. of roadway, for the T.C. A. M'Cormack, Town Clerk.

Competitions.

(*See Competition News page* 586.)

Auction Sales, Tenders, etc.

APRIL 13.—**Ilford.**—Henry Butcher & Co. will sell, at Ilford Hill Works, contractor's plant and machinery. Auctioneers, 63 & 64, Chancery-lane, W.C. 2.

✱APRIL 13.—**Merton.**—Veryard & Yates will sell (opposite "Six Bells" Hotel), building plant and materials. Auctioneers, 365, Norwood-road, S.E.27.

✱APRIL 13 AND FOLLOWING DAY.—**Kent.**—H. W. Smith & Moon (in conjunction with Messrs. Baxter, Payne & Lepper) will sell, by order of the liquidator, H. C. Garland, Esq., *re* Woodhams (Bromley), Ltd., in voluntary liquidation, at No. 141, Mason's-hill and the yards in Prospect-place, Napier-road and Cowper-road, Bromley, builders' and contractors' stock, plant, and machinery. Auctioneers, Baxter, Payne & Lepper, Bromley, and 14, Sackville-street, W. 1; and Smith & Moon, 6, Great James-street, Bedford-row, W.C. 1.

APRIL 14.—**London.**—**Knight, Frank & Rutley** will sell, by order of Capt. J. Bell White, R.N.R., at the Auctioneers' Estate Room, the freehold residential, sporting and agricultural estate, Alderbourne Manor, Bucks; also Alderbourne Farm. The whole extends to about 414 acres. Auctioneers, 20, Hanover-square, London, W.1.

✱APRIL 14.—**London.**—Veryard & Yates will sell, by order of Messrs. Hudsons, Ltd., 566, Mile End-road, useful timber, fittings and building materials. Auctioneers, 365, Norwood-road, S.E.27.

✱APRIL 15.—**Staines.**—Veryard & Yates will sell, at Mr. John Drake's meadow, capital timber and building Mr. John Drake's meadow, corner of Wyatt and Gresham-roads, capital timber and building materials. Auctioneers, 365, Norwood-road, S.E.2.7

APRIL 15.—**Uxbridge.**—Baker, Cooke & Standen will sell, at "The Chequers" Hotel, Uxbridge, freehold building sites in plots of ½ to 20 acres, at Ickenham, a further portion of Swakeley's estate, extending to about 78 acres. Actioneers, 11, Southampton-row, W.C.1, and 62, High-street, Uxbridge.

APRIL 20.—**London.**—Fuller, Horsey & Co. will sell in lots, by order of Perry & Co. (Bow), Ltd., clearance sale owing to expiration of lease, at the Tredegar Works, Bow, E., builders' and contractors' plant and material. Auctioneers, 11, Billiter-square, E.C.3.

APRIL 20.—**Stamford.**—Perry & Phillips will sell the whole of the interior and exterior fixtures and fittings, previous to the demolition of Ketton Hall. After the sale, the fabric of the mansion will be sold, for demolition. Also desirable building plots will be offered for sale. Auctioneers, Bridgnorth.

APRIL 22 AND 23.—**Peacehaven, Sussex.**—Harry Jas. Burt & Son will sell by order of the Peacehaven Building and Supply Co., Ltd., (who are relinquishing the building branch of the business), building materials, timber, steel window frames, &c. Auctioneers, Steyning, Sussex.

APRIL 27.—**Farnborough, Hants.**—Hampton & Sons will sell, at the St. James's Estate Rooms, 20, St. James's-square, S.W.1, freehold building lands, forming part of the Farnborough Hill Estate, Farnborough, Hants, important road frontages, woodlands and pasture lands, superior cottage, in all extending to about 87 acres. Auctioneers, 20, St. James's-square S.W.1.

Public Appointments.

✱APRIL 15.—**Liverpool.**—(1) A fully-qualified temporary Quantity Surveyor. Salary £600 per annum. (2) A temporary Architectural Assistant. Salary £450 per annum, required by the City of Liverpool Housing Department. Walter Moon, Town Clerk, Municipal Buildings.

✱NO DATE.—**Sudan.**—Three Foremen of Works required by the Sudan Government Railways, preferably single. Advisory Engineer, Sudan Government, Wellington House, Buckingham-gate, S.W.1, marking envelope "Foreman of Works."

✱NO DATE.—**Lewes.**—Quantity Surveyor required at once by the East Sussex County Council on the staff in connection with the Architectural Department. Fred. J. Wood, A.M.I.C.E., L.R.I.B.A., County Surveyor, Architect's Department, 10, North-street, Lewes.

Contractors Wanted for the East.

Mr. S. Phillips Dales, F.R.I.B.A., of 63, High Holborn, W.C.1, writes to inform us that English contractors are wanted to tender for a large group of buildings in Jerusalem. He would appreciate application from contractors who are in a position to undertake the work and who have had previous experience in work in the Holy Land or similar countries.

Foreign Building Materials.

The National Federation of Builders' Merchants' Associations is taking steps to call attention to the rapid increase during the past twelve months in the importations from the Continent of bricks, tiles, cement and slates. It is believed that local authorities are placing orders abroad under a misapprehension that British manufacturers are too busy to be able to give prompt delivery, and to correct this impression a reprint of an article from the official journal of the Federation, dealing with the present condition of the industry, has been sent to every member of Parliament and to the various manufacturers' associations for distribution among local councils, housing authorities, and other bodies concerned.

L.C.C. and British Cement.

The Clerk of the L.C.C., replying to a letter from Mr. T. E. Smith, Area Organiser of the National Union of General Workers, in the course of which he stated that he understood that for some time the Council had been buying Belgian cement, says:—"I am directed to inform you that the tenders recently accepted by the Council for the supply of cement are for cement of British manufacture, and the question, therefore, of the rates of wages paid to cement workers in Belgium does not arise." Mr. Smith had pointed out that the Council's contract forms stated that contractors must pay trade union wages, observe the hours, and employ men who had served in H.M. Forces. He added "from our knowledge of Belgium none of these conditions is complied with."

PROPOSED NEW BUILDINGS & OTHER WORKS*.

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

ACCRINGTON.—Electricity sub-stations are to be erected in the neighbourhood of Water-street and Sydney-street, South, at an estimated cost of £1,600; at the higher end of Willows-lane, at a cost of £887; and at a point in Oswaldtwistle, at a cost of £1,640.—New premises for use as a showroom are to be erected at the junction of Burnley-road and Whalley-road, at a cost of £3,000.

AINSWORTH.—Land has been acquired by the Lancashire C.C. in Ainsworth Hall-road, for the erection of a new school.

APPLEBY.—The trustees of the Appleby Grammar School have in view the extensions to their premises by the erection of science laboratories and class-room additions. Mr. A. Knewstubb, architect, St. Andrew's-chambers, Penrith.

BARROW-IN-FURNESS.—Funds are being raised by the Congregation of St. Patrick's for the erection of a new church. Mr. A. Gilbertson, architect, 15, Tithebarn-street, Liverpool.

BEDFORD.—A new church is to be erected which will be known as Christ Church. The seating capacity will be for about 500 persons. Mr. G. P. Allan, F.R.I.B.A., architect, 81, High-street.

BILLINGHAM.—The Housing Committee of the U.D.C. reported that the Public Works Loan Board has granted application for a loan of £1,787 for the acquisition of land adjoining Mill-lane, Billingham.—Application is to be made to the Public Works Loan Board for a loan of £17,117 for the erection of houses on the Chilton's-lane site sanctioned by the M.H.—The sub-committee recommended that the further 100 houses approved by the Ministry for erection at Chilton's-lane be built by direct labour.

BIRKENHEAD.—The Corporation are to erect a passenger shelter in Duke-street.—Plans have been passed for the erection of a girls' secondary school on the Beechfield site, Park-road.—The M.H. has agreed to the site at Balls-road for the erection of the art gallery and museum.—Tenders are to be invited for the erection of flats on the Dell estate.—A scheme is to be prepared for the development of housing land north of Hoylake-road.—Land in Plumer-street has been acquired for the extension of the tramway depot and the erection of 22 houses.

BLACKPOOL.—Plans have been approved for the erection of a new bank off Whitegate-drive, for the District Bank, Ltd., of Manchester. Messrs. Jones & Dalrymple, architects, 178, Oxford-road, Manchester.

BLYTH.—The T.C. has decided upon the erection of a new central school at a cost of £30,000.

BOLTON.—The E.C. has interviewed the B.E. regarding the provision of a new technical school.—Sanction has been obtained for a loan of £70,000 for sewage works at Hacken.—Public conveniences are to be constructed in the basement of the library, Victoria-square.—The Library Committee are considering sites at Tobge suggested for the erection of a branch library.—Tenders are to be invited for the construction of Lever Bridge, Radcliffe-road, revised plans having been adopted, at an estimated cost of £10,500.—Plans have been approved for the erection of a refreshment room at Leverhulme Park, at a cost of £3,000.—A site is being sought for a new depot for the lighting department.—Sanction has been obtained to borrow £20,500 for the purchase of the Moorfield estate for housing.—Tenders are to be invited for painting 700 Council houses.—A seven-acre site at Higher Swan-lane is being considered for a housing scheme.

BONEHURST.—The Surrey C.C. are acquiring land required for the widening of the bridge on the main Brighton-road.

BRISTOL.—The T.C. approved the Cemeteries Committee's recommendation to the erection of mortuaries at Greenbank and Avon View Cemeteries at a cost of £250.—The Council also approved the adoption of a report from the Libraries Committee to the cost of purchasing Fishponds Picture House and adapting it for library purposes at £5,000.—The E.C.'s scheme has also been accepted for the sale of Carlton House, Kingsdown, to the Bristol Royal Hospital for Sick Children and Women for £2,500.

BURNLEY.—The Sites Sub-Commitee of the E.C. has been empowered to enter into negotiations with the object of acquiring Ivy Bank estate, Lowerhouse, for the purpose of erecting secondary schools for boys and girls.

CHAILEY.—The R.D.C. has decided to instruct the Housing Committee to prepare a scheme for the erection of 81 working-class houses for the district.

CHELTENHAM.—The Borough Engineer is to prepare a lay-out of land on the housing estate set aside for a recreation ground.

CHESTER.—The City Council recommend that tenders be invited for erection on land adjoining the

* See also our List of Contracts, Competitions, etc.

Fire Station of a shop, a house, and six cottages, in accordance with plans prepared by the City Surveyor; and application be made to the M.H. for sanction to borrow the necessary monies.—Alterations to the portion of the Smithfield leased to S. R. Fearnall are to be carried out. The work will cost about £525.—The Town Clerk has received the formal sanctions of the M.H. to the borrowing of (a) £2,841, for the erection of six houses by the Universal Housing Co., Ltd., on the Bottoms Lane-site, and (b) the sums of £9,157 and £2,793 for the construction of streets and sewers on the Handbridge estate.—The Council are to purchase a piece of land in Bridge-street, Saltney, for the purpose of electrical sub-stations.—The City Council has obtained sites at the following places for sub-stations: Blacon; Wash Hall, Little Saughall; The Pegg, Great Saughall; Parkgate-road, Little Saughall; Mollington; Green-lane, Great Boughton; Stamford Bridge; Tarvin; Boundary-lane.

COLNE.—A scheme has been approved for the erection by the Corporation of 66 houses within the Borough.

COVENTRY.—The T.C. passed plans: Ten lock-up shops, corner of Foleshill-road and Lockhurst-lane, for J. Coyte; 14 houses, Whoberley-avenue, for A Barratt; 18 houses, Street No. 16, Loudon-avenue Radford housing estate, for E. J. Sutton; 13 houses Street No. 16, Loudon-avenue, Radford housing estate for A. Hall & Son.

CROYDON.—The C.B. recommend that application be made to the M.H. for sanction to borrow about £150,000 for the erection of 266 houses of the Waddon estate.—Various roads and footpaths are to be repaired at a cost of £45,000.—The Council recommend that as soon as the sanction to the £10,275 loan has been received, the Southern Railway Co. be requested to proceed with the execution of the improvement to Brick bridge.—The Electricity Commissioners have approved the extension of Wellesley-road sub-station, at a cost of £390.—Plans passed: Paish, Tyler & Crump, 10 houses, Ashurst-walk, and 20 houses, Birch Tree-way; W. T. Champion & Son, 15 houses, Enmore and Howard-roads; J. & T. Bowyer, Ltd., 17 garages, Church-road, U.N.; J. H. Markham, hall, Lower Coombe-street and Keens-road.

CUMBERLAND.—The Committee of Management of the Cumberland Infirmary are considering the question of proceeding further with the building extension scheme. The architect is to report upon the matter.

DOVER.—The Corporation has obtained sanction to borrow £3,850 for the erection of a pavilion at Granville Gardens.—The Housing Committee are considering the gift of sites on the Buckland estate to builders for the erection of houses.—The Kent E.C. propose the erection of a residential school for 90 children.—A site in Astor-avenue is to be purchased, at a cost of £1,200, for the erection of an elementary school.—The churchwardens of Holy Trinity have obtained a site in Limekiln-street for the erection of a parish hall.

EASTBOURNE.—The Corporation has obtained the consent of the Electricity Commissioners to the extension of the generating station.—The acquisition of 15 acres on Horsey Bank is being considered for a housing scheme.

EPSOM.—Plans for additional classrooms at the elementary school, at a cost of £500, have been forwarded by the Surrey E.C. to the B.E. for approval.

GUILDFORD.—The Surrey Territorial Army Association has acquired land in Nightingale-road for an anti-aircraft station.—Messrs. D. Morris & Sons, Ltd., 57, Charing Cross, have a scheme for the construction of an arcade from High-street to North-street.—Mr. A. Cox, architect, of 11, Southampton-row, London, has prepared plans for additions to the Girls' High School in London-road.

HARWICH.—The Borough Engineer has been instructed to prepare a housing scheme for a site to be acquired from the Co-operative Society.

HEMEWORTH.—Amongst the plans approved by the R.D.C. are: Lay-out plans and house plans for 50 houses at Great Houghton; for 50 houses at Ryhill; for 50 houses at South Elmsall; and for 50 houses at Brierley.

HULL.—The Corporation has obtained sanction to borrow £26,000 for the erection of slipper, hot-air and vapour baths at Beverley-road and at St. Paul's-street.—Tenders are to be invited for the construction of conveniences at Ferens boating lake.—Lay-out plans have been approved for further housing land at East Hull.—Tenders are to be invited for the construction of three blocks containing eight shops and 36 tenements in Scott-street.—The Housing Committee are considering an offer of 40 acres of housing land at West Hull, the City Architect having reported that nearly five hundred houses can be erected.—Further improvements are to be carried out at the Boulevard secondary school, at a cost of £450.—The Corporation are negotiating with the M.H. regarding the scheme for the erection of an infectious diseases hospital at Cottingham, the City Architect reporting that the cost is estimated at £80,000.—A site at North-road has been chosen for the erection of a branch library.—A concrete floor is to be laid at Wilberforce warehouse, at a cost of £420.—Plans passed: 16 houses, Lake View estate, Holderness-road, for G. T. Spruit; 14 houses, Summergangs-road, for C. T. Simmonite.

ILFORD.—The U.D.C. has asked the surveyor to prepare plans for extending the convenience at Seven Kings.—The M.H. has given approval to the preliminary town-planning scheme.

LEEDS.—A scheme is on foot for the erection of a new church of St. Wilfred's in the parish of St. Aiden, Harehills; the seating capacity is for about 650 persons, and is estimated to cost nearly £12,000. Messrs. Kitson, Parish & Ledgard, architects, Lloyds Bank Chambers, Vicar-lane, Leeds, have been appointed to prepare the plans.

LONDON.—The M.A.B. recommend that approval be given to the renewal of certain piping in the hot-water system at Queen Mary's Hospital for Children, at a cost of £713. The M.H. has sanctioned £10,500 on the provision of pathological laboratories, &c., at the Park Hospital, for the M.A.B.—Approval has been given to the carrying out, at an estimated cost of £4,250, heating and hot-water supply systems at the eastern section of the Eastern Hospital.—Subject to M.H. approval, the M.A.B. recommend the provision, at a cost of £2,215, additional coal storage accommodation at the Eastern Hospital.—The M.A.B. recommend that approval be given, subject to the sanction of the M.H., to certain alterations to the needle-room buildings at Queen Mary's Hospital for Children. The cost of the work is £429.—The M.A.B. has authorised the execution by direct labour of the work involved in the provision of heating and hot-water supplies in connection with the formation of a new laboratory, alterations to F block to form artificial sunlight room, &c., and the alterations to provide additional accommodation for nursing staff in block D at The Downs Hospital for Children. The estimated cost of the work is £105.—The M.H. has approved the provision of 60 beds at Queen Mary's Hospital for Children for about 36 girls and 24 boys.—The Board recommend that the proposal to extend the laundry yard at Darenth Training Colony, in accordance with the plan and suggestions now submitted by the engineer-in-chief, at an estimated cost of £300, be approved.—The Ministry has approved the proposed provision of verandas for the infirmary block at High Wood Hospital for Children at a cost not exceeding £375.

LONDON (BERMONDSEY).—The L.C.C. recommend the erection of dwellings on the remainder of the Dickens estate.

LONDON (DOWNHAM).—Approval has been given by the L.C.C. to plans for a new elementary school on the Downham estate. Accommodation is to be provided for over one thousand children, and the cost is computed at £42,500.

LONDON (LEWISHAM).—The L.C.C. has decided to enlarge the elementary school at Dalmain-road by about 230 additional places.

LONDON (POPLAR).—The L.C.C. recommend the erection of dwellings on the Birchfield-street area, Poplar.

LONDON (SOUTHWARK).—The M.H. has sanctioned the borrowing of £18,970 for the erection of a further 44 houses on the Marley Potts estate.

LONDON (WANDSWORTH).—The B.C. has received sanction to the borrowing of £23,500 for the erection of 40 houses on the Southfields housing estate.

LONDON (WHITE OAK).—The M.H. has approved the provision of a veranda at White Oak.

LONDON (WOOLWICH).—The Borough Engineer is to carry out repairs and renovation to various buildings for the B.C., at a cost of £1,267.—The B.C. recommend that, subject to the approval of the M.H., arrangements be made with the War Memorial Hospital Committee to provide further accommodation at the hospital, for the Council.—Plans passed: Royal Arsenal Co-operative Society's estate, Plumstead, 75 houses; J. Sutcliffe, Borough Engineer, 51 proposed houses, Eltham Green-road and Shawbrooke-road, Eltham.

LUTON.—The T.C. has resolved that, when the M.H. has given their approval to the scheme for 254 houses, alternative tenders be invited for building in brick and concrete.

MANCHESTER.—Plans passed by the City Council: 22 houses off Hall-road, Rusholme, for the Rusholme Builders Co. (Manchester), Ltd.

MANSFIELD.—The Board of Management of the Mansfield Hospital are proposing to go forward with a scheme of extensions to their buildings. The plans are being prepared by Mr. B. C. Westwick, A.R.I.B.A., Whitehart Chambers. The scheme includes a two-story addition over the Turner Wards, increasing the accommodation by 52 beds, at an approximate cost of £43,500.

NEWCASTLE.—The Corporation has decided to provide a shopping centre on the High Heaton housing estate, and tenders are to be invited for the erection of 14 shops and houses, which are estimated to cost £19,000.—The Corporation has now arranged with the Postmaster-General for a site for a new telephone exchange.

NEWTON ABBOT.—The R.D.C. approved plans: New Torbay Hospital at Hengrave; enlargement of Hawkmoor House, Bovey Tracey, and proposed children's pavilion and open-air schools for Devon County Council; new electric sub-station on the Newton-road, Cookington, for Torquay Corporation; eight houses at Hennock, eight at Ilsington, 20 at Chudleigh, six at Ogwell, and eight at Chudleigh Knighton.

OLDHAM.—The members of the Pitt-street Baptist Church at Glodwick are raising funds for the erection of new Sunday schools. Messrs C. T. Taylor, Roberts & Bowman, A. and L.R.I.B.A., architects, 10, Clegg-street, architects.

OXFORD.—The City Estates Surveyor submitted a plan of the ladies' lavatory in The Market, showing alternative schemes for enlarging the present accommodation, and the T.C. recommend that a temporary screen be erected, with a view to the erection of a permanent construction.—Application is to be made to the Oxford Incorporation for the setting aside of a portion of the Hospital ground fronting Cowley-road as a site for the erection of public baths for East Oxford.—The Sub-Committee of the E.C. recommend that approval be given to the draft contract submitted for the purchase of the White House site, for the erection of a Municipal Secondary School.

RADCLIFFE.—Messrs. W. Rigby (1920), Ltd., are to erect 37 houses on the Dales estate.

REDHILL.—The Surrey C.C. are acquiring land at Holmthorpe for the extension of the highways depot.

ROCHDALE.—A scheme has been approved by the Housing Committee for the erection of 138 houses on the Milnrow-road site.

ROCHFORD.—The Essex E.C. has acquired an acre of land adjoining the Hockley elementary school for future extensions.—The B.G. are considering the question of erecting further additional buildings at their institution. Mr. Norman Evans, L.R.I.B.A., 27–28, County Chambers, Weston-road, Southend-on-Sea, architect to Board.

ROTHERHAM.—The West Riding C.C. recommend that subject to a satisfactory grant being obtained the Highways Committee be authorised to expend a sum of £14,927 in reconstructing and widening Swallownest and Great Bridges to a width of 60 ft., and in widening and improving the Rotherham and Pleasley and Worksop and Attercliffe main roads.

ROYTON.—A scheme is in preparation for the erection of a new Central School. The plans are being prepared by the County Architect, H. Littler, 16, Ribblesdale-place, Preston.

SHEFFIELD.—The members of the Hillsborough Congregational Church are raising funds for the erection of a new edifice in Wadsley-lane, at a cost of about £7,000.—Four shops at the corner of Westfield-terrace and Devonshire-street are to be altered in connection with the Royal Hospital extensions. It is proposed co convert the premises into lock-up shops and provide nurse's quarters in the upper stories. Mr. H. L. Paterson, architect, Cairns Chambers, Sheffield. The shops abut at the rear on Mount Zion Chapel, which is being converted into an out-patient department for the hospital.—The trustees of the Woodseats Wesleyan Church have a scheme on hand for the erection of new Sunday Schools. A. Brocklehurst & Co., architects, 10, Norfolk-street, Manchester.

SOUTHEND-ON-SEA.—A new church, dedicated to St. Kilda, is to be erected in Westcliff at a cost of about £10,000. Plans have been prepared by the ecclesiastical architect, Sir Charles Nicholson, Bart., 2, New-square, Lincoln's Inn, W.C.

SOUTHGATE.—The U.D.C. passed plans: C. S. Brown, amended plan of 23 houses and 35 garages, Hazelwood-crescent.

SOUTH STONEHAM.—The R.D.C. are proposing to build 34 houses.

SOUTHWELL.—The R.D.C. has received a notice from the Butterley Colliery Company submitting plans for 250 new houses at Ollerton.—The Finance Committee recommended that application be made for the sanction of the Ministry to the extension of the scheme for a further 400 houses.

STANMORE.—Over 252 acres of land has just changed hands, and is to be developed for the erection of new houses and the construction of roads. Messrs. Charles J. R. Milton & Co., surveyors, Nutford-place, Edgware-road, W.

STOKE-ON-TRENT.—The Corporation has obtained sanction to borrow £20,000 for land at Trent Vale for new sewage works.—The City Engineer is to prepare estimates for repairs at Tunstall Town Hall.—A new scheme is to be prepared for dealing with the Sutherland-row unhealthy area, Longton.—A re-housing site is to be obtained at Birch-terrace, Burslem.—Additional land is to be obtained for the Old Rectory housing site, Norton.—The Town Clerk reported upon proposals for the erection of 24 houses at Fletcher-road extension, Stoke, and the T.C. resolved that application be made to the M.H. for approval of the site, and for sanction to the borrowing of £420 for the purchase.—The Electricity Commissioners have sanctioned the borrowing of £887, for the sub-station building in Normacot sub-station.

STRETFORD.—Application is to be made to the M.H for sanction to borrow £7,879 for the purpose of erecting 16 houses in Nelson-street.—An amended estimate has been submitted to the B.E. showing a total reduction of £1,587, for the proposed open-air school, Longford-park. The U.D.C. resolved that the land be offered to the E.C. for purchase outright for the sum of £350.—The Ministry of Agriculture and Fisheries has conditionally approved the Council's proposals to appropriate certain portions of Seymour-grove allotments for the purposes of an electricity transforming sub-station and a public elementary school.—Plans passed: 18 houses, Great Stone-road, for J. W. Maunders, and 18 houses, Rotherwood-avenue, for G. Brown & Sons.

SUNDERLAND.—In connection with the erection of a new Seamen's Institute a further scheme is to be carried out which includes the erection of a chapel and concert hall. Joseph Potts & Son, 57, John-street, Sunderland, are the architects.

THAMES DITTON.—The Brewery Co. are to rebuild on a new site the "Lamb and Star" public house.

THORNE.—The R.D.C. are to begin a new sewage scheme at the old portion of Thorne, and to carry out extensions at Hatfield and Stainforth sewage works.—The Thorne Housing Association, Ltd., propose to erect 232 additional houses.—The Hatfield Main Colliery Co., Ltd., are to erect another 300 houses—Two new schools are to be erected at Thorne, and one new school at Hatfield.

TYNEMOUTH.—The Borough Engineer is to prepare plans for houses to be erected on 17 acres being acquired at Mast-lane.—Tenders are to be invited for the construction of 15 blocks of maisonettes at Balkwell.—Arrangements are to be made for the conversion of 2,500 pail closets, the M.H. having agreed to sanction a loan for the purpose.—The T.C. passed plans: Proposed semi-detached houses, Holly-avenue (sites 103 and 104 Hunt Hill estate), by J. R. Wallace, for J. Carruthers; proposed 17 houses, Salisbury-avenue, by Dixon & Bell, for G. Park & Son, Ltd.

WANSTEAD.—The Essex E.C. has arranged to provide a laboratory at the County High School, at a cost of £1,500.

WARRINGTON.—The National Provincial Bank, Ltd., are proposing to rebuild a portion of the premises at Bridge-street, and to construct a strong room and lavatories.

WELLINGBOROUGH.—The R.D.C. has decided in favour of 12 houses for Wollaston and 24 for Irchester.

WILMSLOW.—The U.D.C. are to prepare a scheme for the erection of 50 houses on land off Chapel-lane and Simpton-street. Plans are being prepared by J. T. Halliday, architect, 14, John Dalton-street Manchester.

FIRES.

OBAN.—A fire occurred recently at Oban destroying a range of stores on the North Pier. The damage is estimated at £10,000.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£	s.	d.
Best Stocks	4	3	6
Second Hard Stocks	3	18	6

Per 1,000. Delivered at London Goods Stations.

Flettons, at	£	s.	d.
King's Cross	2	13	3
Do. grooved for Plaster	2	15	3
Do. Bullnose	3	8	3

Best Stourbridge Fire Brick :—

2½ in.	8	11	0
3 in.	10	3	0

GLAZED BRICKS—

	£	s.	d.
Best White Ivory, and Salt Glazed Stretchers	21	10	0
Headers	21	0	0
Quoins, Bull-nose and 4½ in. Flats	28	0	0

	£	s.	d.
Best Blue Pressed Staffs	9	5	0
Do. Bullnose	9	15	0
Blue Wire Cuts	7	5	0
D'ble Str'tch'rs	30	0	0
D'ble Headers	27	0	0
One Side and two ends	31	0	0
Two Sides and one End	32	0	0
Splays and Squints	29	10	0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s.	d.		s.	d.
2 in. per yd. super	1	11	3 in. per yd. super	2	9
2½ in. „ „	2	4	4 in. „ „	3	6

	s.	d.	
Thames Ballast	10	6	per yd.
Pit Sand	13	9	„ „
Thames Sand	14	6	„ „
Best Washed Sand	14	6	„ „
¾ in. Shingle for Ferro-Concrete	12	9	„ „
½ in. „	14	0	„ „
¾ in. Broken Brick	11	6	„ „
Pan Breeze	7	6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 18 0 to £3	3	6	
51s. alongside at Vauxhall in 80-ton lots.			
Ferrocrete per ton extra on above	0	10	0
Super Cement (Waterproof)	4	8	0
Roman Cement	8	15	0
Parian Cement	5	15	0
Keene's Cement, White	5	15	0
„ „ Pink	5	10	0
Plaster, Coarse, Pink	3	0	0
„ „ White	3	12	6
„ Fine	5	12	0
Sirapite, Coarse	3	9	0
„ Finish	3	17	0
Grey Stone Lime	2	11	9
Chalk Lime	2	11	9
Best Ground Blue Lias Lime	2	4	6
Hair per cwt.	2	2	6
Granite Chippings	1	12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dp.

STONE.

	s.	d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2	9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2	11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4	4
Do. do delivered on road wagons at above stations, per ft. cube	4	5
White basebed, 3d. per ft. cube extra.		
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.		
HOPTON-WOOD STONE— Delivered at any Goods Station, London.	s.	d.
Random blocks from 10 ft. and over P. ft. cb.	17	0
Sawn two sides „	27	0
Sawn three or four sides „	32	0
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	s.	d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per ft. super	5	6
6 in. rubbed two sides, ditto „	6	0
3 in. sawn two sides slabs (random sizes) „	2	3½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1	6½
1½ in. to 2 in. ditto, ditto „	1	4
HARD YORK— Delivered at any Goods Station, London.		
Scappled random blocks Per ft. cube	6	3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5	1½
6 in. rubbed two sides, ditto „	6	1½
4 in. sawn two sides slabs (random sizes) „	2	10
3 in. ditto ditto „	2	1½
2 in. self-faced random flags Per yd. super	9	0

ARTIFICIAL STONE.

Delivered in London Area in full van loads, per ft. cube :—Plain, 8s. 6d. ; Moulded, 9s. 6d. Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£28 0	3 × 6	£21 0
4 × 9	25 0	3 × 11	25 0
4 × 8	24 0	2 × 11	25 0
4 × 7	23 0	3 × 9	24 0
3 × 8	21 0	2½ × 9	23 0
3 × 7	20 0	3 × 4½	22 0
2½ × 7	20 0	3 × 4	22 0

PLANED BOARDS.

1 × 11	£27 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.
¾	20/-
⅞	22/-
1	25/-

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/-
1¼	31/-
1½	34/-

Inches.	per sq.
1½	31/-
1¾	34/-

MATCHING (BEST).

Inches.	per sq.
¾	16/6
⅞	19/-
1	24/-

BATTENS. Inches. s. d. ¾ × 2 ..... 2 6 per 100 ft.

SAWN LATHS.

Per bundle 0 2 4

1" AND UP THICK.

	£	s.	d.		£	s.	d.
Dry Austrian Wainscoat, per ft. cube	0	16	0	to	0	18	0
Dry American and /or Japanese Figured Oak, ft. cube	0	15	0	to	—		
Dry American and/or Japanese Plain Oak, ft. cube	0	11	0	to	0	13	0
Dry sq. edged Honduras Mahogany, ft. cube	0	16	0	to	0	18	0
Dry Log cut Honduras Mahogany, ft. cube	0	18	0	to	1	1	0
Dry Cuba Mahogany, ft. cube	1	4	0	to	1	10	0
Dry Teak, ft. cube	0	13	0	to	0	15	0
Dry American Whitewood, ft. cube	0	11	0	to	0	14	0
Best Scotch glue, per cwt.	4	10	0	to	—		
Liquid Glue, per cwt.	4	7	0	to	5	10	0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£	s.	d.		£	s.	d.
24 by 12	37	12	6	18 by 10	21	2	6
22 by 12	34	0	0	18 by 9	18	12	6
22 by 11	31	5	0	16 by 10	17	12	6
20 by 12	29	15	0	16 by 8	13	15	0
20 by 10	25	12	6				

TILES.

Delivered at London rate stations in full truckloads of not less than 4 tons.

	Per 1,000 f.o.r. London. £	s.	d.
Best machine-made tiles from Broseley or Staffordshire district	5	12	6
Ditto hand-made ditto	5	17	6
Ornamental ditto	6	2	6
Hip and valley tiles (per dozen) Hand-made	0	9	6
Machine-made	0	9	0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	£	s.	d.
R.S. Joists, cut and fitted	12	10	0
Plain Compound Girders	14	10	0
„ Stanchions	16	10	0
In Roof Work „	19	10	0

MILD STEEL ROUNDS. To London Station, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	12	0	0	⅝ in. to ½ in.	10	15	0
⅜ in.	11	0	0	⅝ in. to 2½ in.	10	10	0

WROUGHT-IRON TUBES AND FITTINGS— (Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Black Gas	60 %	50%	60%
Galvanised Gas	45 %	40%	50%
Blue Water	55 %	45%	55%
Galvanised Water	38½%	35%	45%
Red Steam	50 %	40%	50%
Galvanised Steam	32½%	30%	40%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/2½	11½d.	3½d.
3½ in.	1/4	1/0½	3½d.
4 in.	1/5	1/2½	3½d.
4½ in.	1/6½	1/4	4½d.
5 in.	1/9½	1/5½	5½d.

O.G. GUTTERS.

3 in.	1/7	1/3½	3½d.
3½ in.	1/7	1/3½	3½d.
4 in.	1/8½	1/4	3½d.
4½ in.	1/10½	1/6½	4½d.
5 in.	2/3	1/9½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/9½	1/2½	1/8½
2½ in. „	1/11½	1/4	2/0½
3 in. „	2/4½	1/8	2/6
3½ in. „	2/10	2/-	2/10½
4 in. „	3/3	2/4½	3/6

L.C.C. COATED SOIL PIPES—London Prices, ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 11	2 3	2 9
2½ in. „	3 5	2 6	3 5
3 in. „	4 1	2 9	4 0½
3½ in. „	4 5½	3 5	4 8½
4 in. „	4 11½	3 9½	5 5½

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stocks angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	4 3	5 9	7 8
4 in. „ „	6 3	6 11	9 6
5 in. „ „	7 10	12 0	16 3
6 in. „ „	9 6	15 0	20 9

Gasken for jointing, 38/6 per cwt.

IRON—	Per ton in London. £	s.	d.		£	s.	d.
Common Bars	13	0	0	to	14	10	0
Staffordshire Crown Bars—good merchant quality	14	5	0	..	15	5	0
Staffordshire "Marked Bars	16	5	0	..	17	5	0
Mild Steel Bars	10	0	0	..	11	0	0
Steel Bars, Ferro-Concrete quality, basis price	10	0	0	..	11	0	0
Hoop iron, basis price	12	0	0	..	13	0	0
„ Galvanised	27	0	0	..	28	0	0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	13	5	0	..	14	5	0
„ „ „ 24 g.	14	5	0	..	15	5	0
„ „ „ 26 g.	16	5	0	..	17	5	0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15	10	0	..	16	10	0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16	10	0	..	17	10	0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18	10	0	..	20	10	0
No. 1 quality £4 per ton extra.							
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18	10	0	..	19	10	0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	19	0	0	..	20	0	0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	22	0	0	..	23	0	0
Sheets Galvanised Flat. Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22	0	0	..	23	0	0
Best Soft Steel Sheets, 22 g. and 24 g.	24	0	0	..	26	0	0
Best Soft Steel Sheets, 26 g.	25	10	0	..	26	10	0
Cut Nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	19	0	0	..	20	0	0

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£	s.	d.
LEAD—Sheet, English, 4 lb. and up	43	10	0
Pipe in coils	45	0	0
Soil Pipe	47	0	0
Compo Pipe	48	0	0

NOTE—Country delivery, 30s. per ton extra : lots under 3 cwt., 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	28	10	0 —
Do., ex country, carriage forward per ton	29	10	0 —

COPPER.

		s.	d.
Seamless Copper tubes (basis)	per lb.	1	1
Strong sheet	„	1	0
Thin	„	1	1
Copper nails	„	2	3
Copper wire	„	2	4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62*-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1½ in.	2 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1½ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

TIN—English Ingots, 2/10 per lb. SOLDER—Plumbers' 1/2, Tinmen's 1/5. Blowpipe 1/6 per lb.

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil, in pipes per gallon	0	3	1
„ „ „ in barrels „	0	3	3
„ „ „ in drums „	0	3	6
Boiled „ „ in barrels „	0	3	6
„ „ „ in drums „	0	3	9
Turpentine in barrels „	0	5	7
„ in drums (10 gall.) „	0	5	9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	58	5	0

GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J." Brand and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 71 15 0

Red Lead, Dry (packages extra)	per ton	46	0 0
Best Linseed Oil Putty	per cwt.	0	15 0
Filocol	„	0	15 6
Size. XD Quality	fkn.	0	3 6

Continued on next page.

*The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	7½d.
15 „ thirds	4½d.	32 „ thirds	9½d.
21 „ fourths ..	4½d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	5½d.	„ „ 21 „	5½d.
26 „ fourths ..	5d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	4½d.
5/16 Rough rolled	5½d.
⅜ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £ s. d.
Oak Varnish.....	Outside	0 14 0
Fine ditto.....	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto.....	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 0
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak.....	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 6
Best Black Japan		0 10 6
Oak and Mahogany Stain (water).....		0 12 0
Brunswick Black.....		0 7 0
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

BRIXTON SCHOOL OF BUILDING

On Friday, March 26, Mr W. H. Webbe, C.B.E., chairman of the L.C.C. Education Committee, supported by Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., distributed the medals, prizes and certificates to the students of the Brixton School of Building, Ferndale-road, S.W.4, Mr. H. D. Searles-Wood, F.R.I.B.A., presiding. In an introductory address Mr. Webbe said that in the old grammar schools the study of books was considered sufficient and efficient education. The distinguishing feature of the progress of education during the last fifty years was the growth of technical training. Technical education had culminated in these trade schools, of which group the Brixton School was one of the pioneers. Its history for nearly twenty-five years had been one of continuous growth; the number of students had increased from 600 to 1,300 during that time. For this success the school, and ultimately the country, was indebted to one man, the first principal of the school, Mr. Richards, who devoted a lifetime to developing it. The school and the work produced in it was the best possible memorial to his efforts. The school was to be congratulated upon having found a worthy successor in Mr. Sage. There was nothing so vital to London and England as a whole as the solution of the housing problem. The Brixton School was doing its bit towards solving this problem by turning out a stream of highly-skilled craftsmen. In olden days there was a tablet in each big house on which were inscribed the names of the architect and craftsmen who participated in its erection. If this custom were carried on there would be fewer ugly buildings and less slovenly work.

Mr. Webbe then awarded the prizes, the comparatively large number of which is evidence of the high standard of teaching at the school. Thirty-six were open, that is to say, competed for by building schools all over the country. The exhibits of drawings and examples of work in connection with every branch of the building trade promise well for its future.

NEW BUILDINGS IN SCOTLAND

Midlothian.—Houses.—The Calder District Committee of Midlothian County Council are to accept, subject to the approval of the Scottish Board of Health, estimates for the erection of 20 houses at Balerno, 20 at Currie, 8 at Kirknewton, 12 at Ratho, and 8 at Ratho Station. The Housing Sub-Committee were instructed to proceed with as little delay as possible with the erection of 48 houses at West Calder, 20 at East Calder, 12 at Mid-Calder, and 4 at Bellsquarry.

Lanarkshire.—Bridges.—The Lanark County Council are to make a provisional order authorising the Lanark County Council and the Stirling County Council to construct bridges over the Forth and Clyde Canal at East Cadder, near Kirkintilloch, and at Castlecary, respectively.

Aberdeen.—Houses.—The Housing Committee of the Town Council has passed plans for the erection of 40 wooden houses on the Hilton estate. The houses are estimated to cost £420 each.

Glasgow.—Bridges.—Intimation has been received from the Ministry of Transport that they are prepared to make a grant of £12,315 towards the cost, estimated at £24,630, of the construction of a reinforced concrete bridge over the Duntocher Burn, and a grant of £9,565 towards the cost, estimated at £19,130, of the construction of a new bridge over the L.N.E. Railway at Drumchapel.

Dundee.—Building.—The erection of tea rooms at the Caird Park by the City Architect's Department, at an approximate cost of £1,000, has been agreed to by the Parks and Cemeteries Committee of the Corporation.

Edinburgh.—Housing.—The Housing Committee recommend the Town Council to purchase Saughtonhall Farm, of 214 acres, for the purposes of a housing scheme.

Glenconrie.—Bridge.—The Road Board of Aberdeen County Council are to erect a bridge over the Don at Glenconrie, at a cost of £975.

Stirlingshire.—Houses.—The Western D.C. has proposed to erect 12 houses at Torrance, 12 at Balfron, 6 at Haughhead, 10 blocks of two houses each at Lennoxtown, and 1 block of two houses at Milton.

Greenock.—Shops.—At a special meeting the Corporation has adopted a recommendation by the Housing Committee that ground in the vicinity of the new housing areas at Craigieknowes and Cowdenknowes should be feued for the building of shops.

Hull's New Hospital.

Plans for the new infectious disease hospital at Cottingham have been approved by the Hull Corporation Health Committee. It is proposed to provide 374 beds at a cost, apart from that of the two portions already erected, estimated at £85,000.

Exeter Improvement Scheme.

The Exeter Town Council has in hand an extensive slum clearance scheme involving the construction of two new roads and the widening of several existing streets, including a portion of South-street (one of the main city arteries), Coombe-street, West-street, Sun-street, Smythen street, Preston-street, Rock-street, and King-street.

Sunderland Deep-water Quay.

A deep-water quay scheme, costing £200,000, is to be carried out at Sunderland. The scheme provides for a 600 ft. deep-water quay, with warehouses and railway accommodation, just inside the harbour mouth. It is to be carried out by the port authority, the River Wear Commission, and financed by the Sunderland Corporation.

Norwegian Builders for Russia.

The Soviet building workers have invited the Norwegian building workers to send about twenty-five highly skilled builders to the U.S.S.R. for the purpose of instructing Soviet workers in modern methods. At the same time, it is proposed to send a special delegation of Soviet trade unionists conversant with the building industry to Norway, to study the question of the immigration of Norwegian workers to the U.S.S.R.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons', Bricklayers', Plasterers'.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3
Alexandria.....	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge.....	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dumfries	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William.....	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½
Inverness	1/5	—	1/5	1/4	1/5	1/5	1/4	1/- to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkwall.....	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/0 to 1/3
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell.....	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8-1/10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 612.

CURRENT PRICES FOR BUILDING WORK IN LONDON

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
¾ inch on flats in two thicknesses	" "	6	3
Angel fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors, and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal edges shot	per sq.		44/6	53/-	60/6
Do. tongued and grooved	"		49/-	57/6	65/-
Do. matchings	"	45/-	51/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super.	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail: average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	58	0
Do. Do. in flats	"	57	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	4
Do. Do. Sirapite	" "	2	7
Do. Do. Keen's	" "	3	7
Add sawn lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, &c., for suspended ceilings.)			
Portland cement screed	per yard sup.	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8½
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

THE WEEK IN PARLIAMENT

Westminster, *Wednesday.*

Value of Subsidies.

Mr. N. Chamberlain informed Lieut. Colonel Horlick that the Exchequer subsidy payable in respect of schemes under the Housing Act of 1919 depended on the rate of interest payable in the future by local authorities in respect of their loans, and on other variable factors. The annual payments for England and Wales at present amounted to about £7,120,000. It was expected that the payments, which would continue until about 1985, would be considerably reduced in the course of years, but it was not possible to frame any reliable forecast of the reductions nor to state the capitalised value of the subsidies which would be payable. The capitalised value of the Exchequer subsidies, which would be payable on houses authorised under the Housing Acts of 1923 and 1924, was approximately £38,000,000 for England and Wales. Contributions from rates and taxes in respect of present housing commitments would continue until 1985. The contribution of local authorities in England and Wales, in respect of schemes under the Housing Act of 1919, was the produce of a 1d. rate in each year. The contribution, which for the current year amounted to about £900,000, would increase as the assessable value of properties increases, and would continue until 1980; but it was not possible to form any reliable estimate of the capitalised value of the contribution over the whole period. The contribution from rates in respect of houses provided under the 1923 and 1924 Acts, was the amount required to cover the balance of loss year by year after allowing for the fixed Exchequer subsidy of £6 per annum for 20 years and £9 per annum for 40 years respectively.

Contracts and Materials.

Mr. A. Alexander asked the Minister of Health whether he was aware that contractors engaged on Government work were supplied with certain classes of building materials at a price 10 per cent. lower than the same materials could be obtained for ordinary building and housing schemes; and whether he would take steps to secure that the same terms were obtained for all such materials used for public schemes to house the working classes of this country?

Sir K. Wood said that the Minister understood that contracts for Government work were ordinarily made on a lump sum basis, and he had no information as to the arrangements made by contractors for the purchase of materials. The Minister was informed that, in respect of certain materials, reduced prices were quoted by some organisations for housing schemes.

"Combine" Materials.

Mr. Crawfurd asked the Minister of Health whether, in view of the admitted existence of combines for dealing in building materials, he would advise his department, local authorities, and architects interested in building schemes involving a Government subsidy, to avoid specifying materials supplied only by combined firms, and thus give to the manufacturers who were outside such combines the opportunity of supplying materials to serve the needs of the community?

Sir K. Wood said that the Minister had no reason to suppose that local authorities and their architects were not fully aware of the importance of framing their specifications to provide for the widest practicable choice of materials, with a view to securing the most advantageous price; and he did not think that any special action on his part was called for.

Rural Areas.

Mr. T. Williams asked the Minister whether, in view of the housing conditions in rural districts, he was prepared to grant financial assistance towards making the many existing ill-conditioned houses more habitable and up to date?

Sir K. Wood said that the question of reconditioning houses in rural areas was at present under consideration, but the Minister was not in a position to make a statement on the subject.

TRADE NEWS

Messrs. James Smith & Sons (Norwood), Ltd., of Junction Works, South Norwood, write to contradict statements that their business, which was established in 1859, is closing down. These are quite untrue. The business will continue under the same direction and management as hitherto.

Mr. H. S. Parsons, who has been connected with Messrs. Peerless Dennis & Co., Ltd., builders and contractors, of Eastbourne, for the past twenty-five years as manager, has now joined the board of directors to fill the position left vacant by the death of the late Mr. C. Peerless Dennis.

The Ransome Machinery Co. (1920), Ltd., of Windsor House, 46, Victoria-street, S.W.1, have recently received an order from Messrs. S. Pearson & Son, of 10, Victoria-street, S.W.1, for two No. 0 size and four of their No. 1 size concrete mixers fitted with electric drive, together with 10 type "A" tip-carts for use on their contract at Cia Hidro-Electrica, Volcan, Santiago, Chili.

Bell's United Asbestos Co., Ltd.

The directors of this company have resolved to recommend to the shareholders, at the annual general meeting to be held on April 22: (*a*) The payment of a balance dividend of 2s. per share on the ordinary shares which, with the interim dividend paid in October last, makes a total distribution of 12½ per cent. for the year; (*b*) that £2,000 be placed to Staff pensions fund; (*c*) that £8,000 be placed to reserve, increasing that fund to £210,498; and (*d*) that £34,961 be carried forward.

Mr. F. H. Livens.

Mr. F. H. Livens, M.I.Mech.E., director and chief engineer of Messrs. Ruston & Hornsby, Ltd., of Lincoln, has just completed 50 years' service with the Company, in recognition of which, at a Board meeting, the Chairman, on behalf of the Company and directors, presented him with an oil painting as a mark of their personal friendship and esteem, and of their great appreciation of Mr. Livens's valued services, coupling with it the hope that they would have the benefit of his experience for many years to come. The picture is by Niemann, and the subject "Lincoln," as seen in 1858 from the Witham Bank of the south-east of the city; it is characteristic of that artist's best style, and was formerly in the collection of the late Mr. Alfred Shuttleworth.

Roneo, Ltd., & Art Metal Equipment Co., Ltd.

For a number of years the Art Metal Equipment Co., Ltd., has manufactured and sold special work in steel for the equipment of banks, libraries, business offices, battleships, passenger ships, &c., also fire-resisting fittings, including doors, partitions, shutters, adjustable shelving, and in fact, any type of work previously made in wood, while Roneo, Ltd., have confined themselves to the manufacture and supply of steel filing cabinets, cupboards, card index drawers, steel desks, and other standardised stock fittings of a similar character. Arrangements have now been completed to link up these two branches of the industry by Roneo, Ltd., acquiring the goodwill of the Art Metal Equipment Co., Ltd. Additional premises have been obtained in Holborn, so as to give greater showroom facilities, in Roneo Building, 5–11, Holborn, and both contract work and standard fittings will be sold throughout the world by the entire Roneo organisation, consisting of 17 branches in England and branches or agents throughout the world. Mr. James C. Sellers, who has been identified with the steel furniture and equipment business since over twenty years ago, will continue to direct this work (as previously), at Roneo Building, 5–11, Holborn.

Originally certain steel equipments were imported from America, but since 1918 all the firm's products have been manufactured in England, and this policy will be continued. The Roneo works at Romford are now working day and night, and are being further extended in view of these arrangements to cope with the increased business.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted.* † Denotes *provisionally accepted.* ‡ Denotes *recommended for acceptance.* § Denotes *accepted subject to modifications.***

ASHWELL.—Thirty-six cottages, for the R.D.C. Mr. J. C. Tickle, architect, 139, Lytton-avenue, Letchworth:—

Ashwell—18 *non-parlour and* 8 *parlour cottages, on two sites.*

Seymour & Tookey, Stotfold	£12,488 19 4
Pettengall & Clark, Hitchin	12,348 10 0
D. C. Pearce, Letchworth	12,013 0 0
Bennett Bros., Letchworth	12,012 0 0
Jeffs & Bigley, Letchworth	11,869 10 0
W. F. Bailey, Letchworth	11,806 2 4
‡F. J. Bailey & Co., Ashwell	11,532 0 0

Hinxworth—4 *non-parlour and* 2 *parlour.*

Turner Bros.	£3,297 16 0
Baxter & Warboys	3,106 0 0
W. F. Bailey	2,821 3 6
F. J. Bailey & Co.	2,807 0 0
Seymour & Tookey	2,752 0 0
D. C. Pearce	2,712 3 0
Rand	2,665 0 0
‡Jeffs & Bigley, Letchworth	2,663 4 0

Barley—4 *non-parlour.*

Baxter & Warboys	2,180 0 0
A. Chuck	2,065 0 0
‡Seymour & Tookey	1,887 12 8
Jeffs & Bigley	1,673 14 0

BECKENHAM.—Fencing of the Beck-lane plots, for the U.D.C.:—

*S. Underwood Co.	£270

BELFAST.—Construction of a concrete reservoir at Ballyaghagan, for the T.C.:—

S. R. Boyd, Belfast	£5,342 6 5
James Henry & Son, Belfast	4,842 19 10
J. & R. Thompson, Belfast	4,350 0 0
James Ross & Son, Belfast	4,289 16 5
R. D. Pollock, Bangor	4,013 13 0
John Graham, Dromore	3,978 7 9
W. J. Campbell & Son, Belfast	3,948 2 2
J. & W. Stewart, Belfast	3,745 14 7
R. Colhoun, Derry	3,719 5 1
H. Laverty & Sons, Ltd., Belfast	3,573 0 0
Grainger Bros., Holywood	3,334 1 0
McLaughlin & Harvey, Belfast	3,250 0 0
*Logan & Sons, Belfast	2,826 11 4

BIRMINGHAM.—Reconstruction and new shop and display fronts for premises in Corporation-street, for C. & A. Modes, Ltd., drapers. Messrs. North, Robin & Wilsdon, architects, 35-39, Maddox-street, W.1:—

*B. Whitehouse & Son, Ltd., Birmingham.

BLACKPOOL.—Tramway shelters on the east side of the Promenade tram track at South Shore, for the C.B.:—

*W. McFarlane & Co.

BRADFORD.—New building for offices and stores, Barmouth-street, for Messrs. J. Kenworthy & Sons. Mr. A. H. Mills, architect, Sale, Cheshire:—

*J. Riley & Sons, Bradford.

BURSLEM.—Improvements and alteration at Wedgwood Institute, for the Stoke T.C.:—

*Pane Pemberton, Tunstall	£836

CHELMSFORD.—Shelter and conveniences at junction of Baddow-road and Moulsham-street, for the T.C. Mr. E. J. Miles, engineer:—

*G. J. Hawkes & Sons, Chelmsford	£2,175 10

CHELTENHAM.—Pair of non-parlour houses at Haydon Knoll, for the T.C.:—

*Trigg Bros.	£929 10

CHESTERFIELD.—Baths at Hasland, for the T.C. Messrs. Wilcockson & Cutts, architects. Quantities by the architects:—

Anderson & Sons, Chesterfield	£11,300 0 0
J. Collis & Sons, Chesterfield	11,050 0 0
G. F. Kirk, Chesterfield	10,925 0 0
W. G. Robson, Sheffield	10,768 0 0
Swift Bros. & Haslam, Doncaster	10,545 17 9
*C. E. Gaunt, Chesterfield	10,469 0 0

CLAVERING.—Retaining walls on main road, for the Essex C.C.:—

‡A. J. Arnold, Chelmsford	£4,299 7

CROYDON.—Converting relief station in Sanderstead-road into flats, for the C.B.:—

‡E. G. Cusden, Croydon	£228

CROYDON.—Sub stations in (*a*) Mapledale-avenue and (*b*) Selhurst Well, for the C.B.:—

*D. Waller—	
(*a*)	£202
(*b*)	324

CROYDON.—266 houses on the Waddon estate, for the C.B.:—

‡Croydon Master Builders' Association.

DROGHEDA.—Twelve houses at Sandyford-alley, for the Irish Sailors' & Soldiers' Land Trust:—

*S. Henly & Sons, Drogheda	£6,610 11 10

EASTBOURNE.—Foundations for plant at power station, for the T.C.:—

*Peter Laird & Co.	£476

EASTBOURNE.—Extension of boiler house at power station, for the T.C.:—

*Pierson & Co., Ltd.	£699

EAST DEREHAM.—Two pairs of cottages in Crown-road, for the U.D.C. Mr. W. Astley Norris, engineer and surveyor :—

Horace Mack, East Dereham	£2,320
Taylor & Son, East Dereham	2,198
*H. C. Tofts, Kingham	2,000

EAST DEREHAM.—Convenience, for the U.D.C. Mr. W. Astley Norris, engineer and surveyor :—

H. C. Tofts, Kingham	£710
*Taylor & Son, East Dereham	449

ELLAND.—Twelve houses on the Jepson-lane site, for the U.D.C. Mr. T. E. Fisher, L.R.I.B.A., architect. Quantities by the architect :—

Excavator, mason and bricklayer—
*J. T. Akroyd, Elland—8 houses.
*Marshall & Rushforth, Elland—4 houses.
Carpenter and joiner—
*J. E. R. & T. Crowther, Elland—12 houses.
Plumber and glazier—
*E. Turner, Elland—12 houses.
Slater—
*H. Castle & Son, Ltd., Brighouse—12 houses.
Plasterer—
*H. Castle & Son, Ltd., Brighouse—12 houses.
Electric lighting—
*E. Turner, Elland.

EPSOM.—Additions to the Union Hospital and Nurses' Home, Dorking-road, for the B.G. :—

‡E. D. Winn & Co., Ltd., London (Subject to sanction of M.H.)	£22,219

EVESHAM.—Thirty-eight houses, for the R.D.C. Mr. R. J. Atkinson, surveyor :—

Hampton Scheme.

E. Thompson & Co., Ltd., Birmingham	£6,860
John Taylor & Sons, Evesham	6,706
W. A. Cox (Evesham), Ltd., Evesham	6,650
J. C. Neades, Evesham	6,580
C. Steward, Broadway	6,499
Espley & Co., Ltd., Evesham	6,360
*W. White, Hampton	6,244

Harrington Scheme.

W. A. Cox (Evesham), Ltd., Evesham	£2,949
J. C. Neades, Evesham	2,940
E. Thompson & Co., Ltd., Birmingham	2,886
Alcester Builders, Ltd., Alcester	2,758
J. Taylor & Sons, Evesham	2,650
*Espley & Co., Ltd., Evesham	2,630

Norton Scheme.

W. A. Cox (Evesham), Ltd., Evesham	£4,950
J. C. Neades, Evesham	4,900
Alcester Builders, Ltd., Alcester	4,717
E. Thompson & Co., Ltd., Birmingham	4,660
Espley & Co., Ltd., Evesham	4,620
*J. Taylor & Sons, Evesham	4,480

Bretforton Scheme.

J. C. Neades, Evesham	£3,980
W. A. Cox (Evesham), Ltd., Evesham	3,899
Espley & Co., Ltd., Evesham	3,690
E. Thompson & Co., Ltd., Birmingham	3,688
J. Taylor & Sons, Evesham	3,520
H. W. Crisp, Bretforton	3,520
*C. Steward, Broadway	3,504

EXETER.—Twelve houses in Locarno-road, for the T.C. :—

*J. Loman & Sons.

EXETER.—154 concrete houses on the Buddle-lane estate, for the T.C. :—

‡Laing & Son £449 12s. 6d. per house. (Subject to M.H. approval.)

GLASGOW.—177 houses at Bellahouston, for the T.C. :—

Mason, &c.—

‡J. Kirkwood & Smith, Ltd.	£54,149 13

Joiner—

‡G. Eaglesham	35,910 15

Slater—

‡P. Whyte & Co.	9,514 17

Glazier—

‡J. P. M'Phie	959 0

Plumber—

‡T. Porter & Sons	18,895 6

Plaster—

‡A. M'Kellar	6,409 16

Iron railings and gates—

‡Star Architectural Iron Works, Ltd.	1,284 11

GLASGOW.—Three hundred houses, for the T.C. :—

*Kane Brickwood Housing Co.	£395

GLASGOW.—Painter work at Whiteinch baths, for the T.C. :—

‡Mackenzie & M'Arthur	£792

GUILDFORD.—Repairs at market and construction of poultry pens, for the T.C. :—

Tribe & Robinson, Ltd.	£367
*W. G. Oliver	235

HEYWOOD.—Additional story at the Roach Mill, for the Roach Mill Spinning & Manufacturing Co., Ltd. Mr. S. Stott, architect, York Chambers, Oldham :—

*J. Partington, Ltd., Middleton Junction.

HULL.—Foundation and basement of boiler house at power station, for the T.C. :—

G. Houlton & Son, Hull	£3,845 0 0
J. Sangwin, Ltd., Hull	3,148 5 0
Kettlewell, Son & Co., Hull	2,878 0 0
Fenwick & Son, Hull	2,600 0 0
Quibell & Son, Hull	2,460 0 0
H. Sugden, Son & Co., Bradford	2,343 12 6
*Hinch Bros., Ltd., Hull	2,299 16 0
City Engineer's estimate	3,000 0 0

HULL.—For (*a*) convenience at Nelson-street, and (*b*) fencing, &c., for the T.C. Mr. F. W. Bricknell, City Engineer :—

(*a*) Quibell & Son, Ltd., Hull	£2,090 0 0
(*b*) A. N. Taylor, Hull	296 10 6

HUNSLET.—Twenty-two houses at Templenewsam, near Leeds, for the R.D.C. :—

*Lazenby Bros., Leeds.

LEEDS.—Working men's club, Kirkstall, Leeds. Messrs. F. Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street. Quantities by the architects :—

*Builder—*L. Harpham, Leeds.
*Joiner—*J. Trickett, Son, & Co., Leeds.
*Plumber—*E. Garnett, Leeds.
*Plasterer—*E. Blackburn, Leeds.
*Slaters—*Turner Bros., Rochdale.
*Painter—*W. Liddle, Leeds.

LEEDS.—Adaptation of 24, Great George-street for use as a Coroner's Court, &c., for the T.C. :—

*J. T. Wright	£887 15

LEEDS.—Six "all gas," six "all electric," and six ordinary houses on each of the following housing estates, for the T.C. :—

*J. Broderick & Sons—	
Wyther estate	£9,469 10
Hawksworth Wood estate	9,289 10
*P. Rhodes, Ltd.—	
Meanwood estate	9,714 0
Middleton estate	9,378 0

LEEDS.—Conversion of stables at the Beckett-street institutions into garages, for the B.G. Messrs. Bowman & Son, architects :—

*Wm. Simpkins, Leeds.

LEEDS.—Additional lavatory accommodation in the Nurses' Home extensions, St. James's Hospital, Beckett-street, for the B.G. Messrs. G. F. Bowman & Son, architects, 18, Park-row :—

*Geo. Thompson, Leeds.

LEOMINSTER.—Sixteen houses on the Caswell Fields site, for the Corporation :—

Powles & Jones, Leominster	£7,280
*W. H. Peake & Son, Hereford	6,580
H. Saxon, Kingsland	6,510
J. & L. Watkins Leominster	5,880

LONDON.—Electric lighting at Southern Hospital, for the M.A.B. :—

Taylor & Allen, Ltd., Bootle	£10,790 0 0
S. Dixon & Son, Ltd., Leeds	10,722 0 0
H. B. Giles, Cardiff	10,221 0 0
Coley & Swinnerton, Ltd., Wolverhampton	9,450 0 0
Douglas Electric Light & Power Co., London	8,987 0 0
Brightside Foundry & Engineering Co., Ltd., London	8,975 0 0
T. Clarke & Co., Ltd., London	8,760 0 0
‡Read & Partners, Ltd., London	7,865 0 0
Kershaws, Manchester	7,575 13 3

LONDON.—Electric lighting at Joyce Green Hospital, for the M.A.B. :—

A. S. Goodwin & Co., London	£13,700
H. B. Giles, Cardiff	12,704
S. Dixon & Son, Ltd., Leeds	12,408
Higginbotham & Sons, Idle, Yorks	12,200
Coley & Swinnerton, Ltd., Wolverhampton	12,200
Brightside Foundry & Engineering Co., Ltd., London	11,985
Read & Partners, Ltd., London	11,703
Kershaws, Manchester	11,418
T. Clarke & Co., Ltd., London	11,000
L. G. Tate & Co., Ltd., London	10,800
‡Douglas Electric Light & Power Co., London	9,997

LONDON.—Engineer's cottage at the Western Hospital, for the M.A.B. :—

C. H. Boyd & Son, Ltd.	£1,472 0
A. H. Inns, Ltd.	1,449 0
C. & R. Harding	1,427 19
A. Logan	1,366 0
J. Darch, Ltd.	1,350 0
‡W. Griffiths, Sons & Cromwell, Ltd. (All of London).	952 0

LONDON.—Boundary fencing at the North-Western Hospital, for the M.A.B. :—

A. C. Mackinlay, London	£187 10
E. C. White & Son, Ltd., Basingstoke	155 0
C. H. Boyd & Son, Ltd., London	142 0
Astolat Co., Guildford	120 0
‡Rowland Bros., Bletchley	105 0

LONDON.—Boundary fencing at the Belmont Institution, for the M.A.B. :—

E. C. White & Son, Ltd., Basingstoke	£569
Woodthorpe Joinery & Moulding Co. (1924), Ltd., Ashford, Middlesex	565
Astolat Co., Guildford	453
‡Rowlands Bros., Bletchley	389

LONDON.—Enlargement of Peckham Rye Elementary School, for the L.C.C. :—

Griggs & Sons	£14,978
F. & T. Thorne	14,326
G. Parker & Sons, Ltd.	14,224
J. Carmichael (Contractors), Ltd.	14,173
J. Garrett & Son	14,080
Lole & Co.	13,870
Leslie & Co., Ltd.	13,666
W. Harris, Ltd.	13,606
J. & C. Bowyer, Ltd.	13,427
‡W. Akers & Co., Ltd.	13,333

LONDON.—Low-pressure hot-water heating instal lation at St. John's road school, Shoreditch, for the L.C.C. :—

Heywood & Bryett	£300 0 0
Tilley Bros., Ltd.	281 17 6
Buckleys (London), Ltd.	279 0 0
G. Davies	277 0 0
Beaven & Sons, Ltd.	266 10 0
Barrett & Wright, Ltd.	255 0 0
W. G. Cannon & Sons, Ltd.	254 0 0
Palowkar & Sons	252 3 0
H. J. Cash & Co., Ltd.	234 0 0
Clark, Hunt & Co., Ltd.	233 0 0
J. T. Meredith & Co., Ltd.	232 0 0
‡W. Griffiths, Sons & Cromwell, Ltd.	227 0 0

The architect's comparable estimate, £255.

LONDON.—Provision of additional Science accommodation at the Secondary School, Streatham, for the L.C.C. :—

W. Akers & Co., Ltd.	£1,185
Triggs & Co.	1,143
Wm. Harbrow, Ltd.	1,063
J. Carmichael (Contractors), Ltd.	1,059
J. Garrett & Son	1,037
J. & C. Bowyer, Ltd.	1,025
T. Brown & Son	985
Humphreys, Ltd.	967
‡W. H. Gaze & Sons, Ltd.	933
The architect's comparable estimate (All of London).	985

LONDON.—Handicraft centre at Portobello-road, school, Kensington, for the L.C.C. :—

‡J. P. Williams, Ltd.	£1,144 10

LONDON.—New schools at Bonner-road, Bethnal Green, E.2. Messrs. Sandy & Norris, F. & A.R.I.B.A., architects and surveyors, 20, Bedford-row, London, W.C.1 :—

*Crawley & Co., London.

LONG EATON.—Fourteen houses in Wellington street, for the U.D.C. Mr. H. Raven, architect :—

E. E. Stevens, Long Eaton	£7,495
J. E. Jervis, Ltd., Long Eaton	7,350
H. R. Hofton & Son, Beeston	7,040
*F. Perks & Son, Ltd., Long Eaton	6,971

LUTON.—Steel work for the new engine room at the pumping station, for the T.C. :—

*Braithwaite & Co., Engineers, Ltd.	£455

LUTON.—Superstructure of the boiler house at the sewage pumping station, for the T.C. :—

*Luton Building Co.	£2,689

MANCHESTER.—Factory at Longsight, for the United Cattle Products, Ltd., Corporation-street. Messrs. Wrathmell & Blackshaw, architects, Queen's Buildings, Stockport :—

*Builder—*Hy. Bardsley & Sons, Ltd., Stockport.
*Plumber—*D. Bardsley, Stockport.
*Steelwork and concrete—*Phœnix Construction Co., Ltd., Manchester.

MANCHESTER.—Extensions to the works at Trafford Park, for the Sandoz Chemical Co., Ltd. Mr. J. A. Brewerton, architect, 89, Oxford-road :—

*Builders—*Haighton & Lord, Hulme.
*Steelwork—*Banister Walton Co., Ltd., Trafford Park.

MANCHESTER.—Rebuilding premises in Great Jaction-street, Hulme, for a police and fire station, for the Manchester City Council. Mr. J. H. Price, A.R.I.B.A., City Architect :—

*C. H. Normanton & Sons, Ltd., Longsight.

NEWCASTLE.—Secondary school at Heaton, for the E.C. :—

*Stanley Miller, Newcastle	£111,587

NEWCASTLE - UNDER - LYME. — Eighty two houses on the Cross Heath site, for the T.C. Mr. A. Pattison, surveyor :—

Stanley, Ltd., Newcastle-under-Lyme	£21,588
P. Pemberton, Stoke	47,700
E. Johnson, Stoke	47,094
Maddock Bros., Stoke	46,910
J. G. Taylor & Son, Newcastle-under-Lyme	44,457
Eadie Towers & Co., Wolverhampton	42,277
†Stephen Heath & Son, Newcastle-under-Lyme	42,098

NEWTON ABBOT.—Convenience at Bovey Tracey, for the R.D.C. Messrs. A. Gray and W. J. Luxton, surveyors. Quantities by the surveyors :—

W. F. Pearce, Chudleigh	£614 2 7
M. Nickols, Bovey Tracey	518 0 0
Davie Bros., Bovey Tracey	484 10 0
Heath Bros., Bovey Tracey	478 14 2
E. A. Winsor, Bovey Tracey	418 13 5
*S. J. Turner, Bovey Tracey	394 7 6

NOTTINGHAM.—New Exchange Hall and arcades, with offices and shops, in place of the present buildings fronting the Market-place, for the T.C. :—

‡F. G. Minter, Ltd., London	about £500,000

ORSETT.—New classrooms at Langdon Hills Elementary School, for the Essex E.C. :—

‡W. Simms	£2,020

POOLSTOCK.—Alterations to St. James' Schools. Messrs. Prescott & Bold, architects :—

*R. G. Dawson, Wigan	£1,590

PORTSMOUTH.—Renovations at St. Simon's Church, Southsea. Mr. S. E. White, architect, 73, Waverley-road, Southsea :—

*J. Lay & Co., Portsmouth.

PORTSMOUTH.—Additions to Corpus Christi Church, for Rev. Reginald F. Raab. Messrs. J. H. & W. C. Maugan, architects, 18, Guildhall-street, Preston :—

John Lay & Co., Portsmouth	£3,119
*S. Salter, Southsea	2,893

RICHMOND (SURREY).—Provision of double windows at County School, for the Surrey E.C. :—

*Cropley Bros. £309

RICHMOND (SURREY).—Central schools, for the E.C. Messrs Jarvis & Richards, architects; Messrs. Evill & Hadland, surveyors; quantities by the surveyors :—

R. Dixon & Sons, Chelsea	£38,147	6	2
J. Jarvis & Sons, Ltd., London	36,397	0	0
H. Knight & Son, Tottenham..	35,329	0	0
McLaughlin & Harvey, London	35,194	0	0
E. D. Winn & Co., Ltd., London	34,798	0	0
W. H. Gaze & Sons, Ltd., Kingston-on-Thames	34,733	0	0
Toole & Sons, Ltd., Richmond	32,836	0	0
J. Elliman & Son, Ltd., Beckenham	32,584	0	0
Limpus & Son, Kingston-on-Thames.....	31,044	0	0
*Richard Ginn & Son, Hertford	30,408	0	0

Surveyor's estimate, £33,049.

ROYTON.—Branch bank on Rochdale-road and Middleton-road, for the Midland Bank, Ltd. Messrs. Taylor & Simister, architects, 29, Queen-street, Oldham :—

*Whitworth Whittaker, Ltd., Oldham.

SEFTON.—Eighteen houses at Ince Blundell and Lydiate-lane, for the R.D.C. Mr. E. B. Bailey, L.R.I.B.A., architect, 9, Cook-street, Liverpool :—

*A. Riordan, Liverpool.

SEVERALLS.—Enlargement of mental hospital, for the Essex C.C. :—

‡A. J. Arnold, Chelmsford..... £5,345

SOUTHGATE.—Fencing a length of about 180 yds. of iron railings required to continue the Grovelands' park fencing from the hospital boundary to Bourne Hill, for the U.D.C. :—

*Bayliss, Jones & Bayliss..... 17s. per yard.

SOUTHWELL.—Infirmary at the Workhouse, Upton-road, for the B.G. Messrs. Sands & Walker, architects, Milton Chambers, Nottingham :—

*W. Smith, Newark..... £8,046

STANLEY.—Catholic Central School. Mr. F. A. Coyle, L.R.I.B.A., architect, 29, Newmarket-street, Consett, co. Durham :—

Builder—Thomas Rodgers, Darlington.
**Plasterer*—M. Ryan, Newcastle.
**Plumber*—L. Urwin, Shotley Bridge.

STEBBING.—Reconstruction of Ford Bridge, for the Essex C.C. :—

‡J. S. Norton, Halstead £2,435

STOCKTON-ON-TEES.—Extensions and additions to the Oxbridge-lane cemetery, for the T.C. Mr. J. P. Wakeford, Borough Engineer :—

*A. E. Hobbs, Stockton-on-Tees.

THORNE.—Seventy houses, for the R.D.C. :—

*J. Bird, Hatfield..... £30,312

(Subject to the approval of M.H.)

UPTON (W. YORKS).—262 houses, for the Upton Colliery Co., Ltd. :—

*The Housing Corporation of Great Britain, Ltd.

WALLASEY.—Alterations and additions to the heating apparatus at the Wallasey High School for Girls, for the T.C. :—

‡R. M. Jones..... £139

WALLASEY.—School at Egerton-grove, Liscard, for the C.B. :—

†J. Dolan & Sons, Warrington..... £29,906

WALLINGFORD.—Fourteen houses at Cholsey, for the R.D.C. Messrs. J. G. T. West & Son, architects :—

J. W. Beeson, Reading	£7,237	6	0
F. H. Brotherwood, Steventon	7,059	0	0
D. J. Williams, Porth	6,913	19	3
†Boshers, Ltd., Cholsey	6,727	0	0

WARRINGTON.—New golf club house at Appleton, for the Warrington Golf Club. Mr. A. Warburton, architect, 2, Bold-street :—

*F. Warburton & Sons, Stockton Heath.

WATERFOOT.—Offices in Tenterfield-street, for the Rossendale Boot, Shoe and Slipper Operatives' Association. Mr. A. Brocklehurst, L.R.I.B.A., architect, St. James Chambers :—

*T. Brown, Ltd., Haslingden.

WIGAN.—First portion of new St. Luke's Church at Orrell, for the Parochial Church Council. Messrs. Austin & Paley, architects, 34, Castle-hill, Lancaster :—

*C. O. Hallett, Stockport.

WOKING.—Erection of cookery rooms, &c. at County School for Girls, for the Surrey E.C. :—

*R. Paine & Son, Ltd..... £1,796

WOODFORD.—Extensions to County High School, for the Essex E.C. :—

*W. Simms £34,898

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